

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: FENG, YIQING
BAUM, CHARLES M
CAPARON, MAIRE H
ZURFLUH, LINDA L
KLEIN, BARBARA K
MCWHERTER, CHARLES A
STATEN, NICHOLAS R
SUMMERS, NEENA L
BAUER, S C

(ii) TITLE OF INVENTION: MULTI-FUNCTIONAL HEMATOPOIETIC
FUSION PROTEINS BETWEEN SEQUENCE REARRANGED
G-CSF RECEPTOR AGONISTS AND OTHER
HEMATOPOIETIC FACTORS

LEE, STEPHEN C

- (iii) NUMBER OF SEQUENCES: 313
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: CAROL M. NIELSEN, GARDERE WYNNE SEWELL, LLP
 - (B) STREET: 1000 LOUISIANA, SUITE 3400
 - (C) CITY: HOUSTON
 - (D) STATE: TEXAS
 - (E) COUNTRY: USA
 - (F) ZIP: 77002-5007
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Diskette
 - (B) COMPUTER: IBM PC compatible
 - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 - (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: US/10/695,584
 - (B) FILING DATE: 27-Oct-2003
 - (C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: US 09/510,238
 - (B) FILING DATE: 22-FEB-2002
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: US 08/835,162
 - (B) FILING DATE: 04-APR-1997
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: WO PCT/US 96/15774
 - (B) FILING DATE: 06-OCT-1996
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: US 60/004,834
 - (B) FILING DATE: 05-OCT-1995

(viii) ATTORNEY/AGENT INFORMATION:

- (A) NAME: NIELSEN, CAROL M
- (B) REGISTRATION NUMBER: 37,676
- (C) REFERENCE/DOCKET NUMBER: 2910/3

(ix) TELECOMMUNICATION INFORMATION:

- (A) TELEPHONE: 713-276-5383
- (B) TELEFAX: 713-276-5383

(2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 174 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: protein
- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 1
- (D) OTHER INFORMATION: /note= "Xaa at position 1 is Thr, Ser, Arg, Tyr or Gly;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 2
- (D) OTHER INFORMATION: /note= "Xaa at position 2 is Pro or Leu;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 3
- (D) OTHER INFORMATION: /note = "Xaa at position 3 is Leu, Arg, Tyr or Ser;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 13
- - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 16
- (D) OTHER INFORMATION: /note = "Xaa at position 16 is Lys, Pro, Ser, thr or His;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 17
- (D) OTHER INFORMATION: /note = "Xaa at position 17 is Cys, Ser, Gly, Ala, Ile, Tyr or Arg;"

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 18
- (D) OTHER INFORMATION: /note= "Xaa at position 18 is Leu, Thr, Pro, His, Ile or Cys;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 22
- (D) OTHER INFORMATION: /note= "Xaa at position 22 is Arg, Tyr, Ser, Thr or Ala;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 24
- (D) OTHER INFORMATION: /note= "Xaa at position 24 is Ile, Pro, Tyr or Leu;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 27
- (D) OTHER INFORMATION: /note = "Xaa at position 27 is Asp, or Gly;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 30
- (D) OTHER INFORMATION: /note= "Xaa at position 30 is Ala, Ile, Leu or Gly;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 34
- (D) OTHER INFORMATION: /note= "Xaa at position 34 is Lys or Ser;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 36
- (D) OTHER INFORMATION: /note= "Xaa at position 36 is Cys or Ser;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 42
- (D) OTHER INFORMATION: /note = "Xaa at position 42 is Cys or Ser;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 43
- (D) OTHER INFORMATION: /note= "Xaa at position 43 is His, Thr, Gly, Val, Lys, Trp, Ala, Arg, Cys, or Leu;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site

- (B) LOCATION: 44
- (D) OTHER INFORMATION: /note= "Xaa at position 44 is Pro, Gly, Arg, Asp, Val, Ala, His, Trp, Gln, or Thr;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 46
- (D) OTHER INFORMATION: /note= "Xaa at position 46 is Glu, Arg, Phe, Arg, Ile or Ala;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 47
- (D) OTHER INFORMATION: /note= "Xaa at position 47 is Leu or Thr;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 49
- (D) OTHER INFORMATION: /note = "Xaa at position 49 is Leu, Phe, Arg or Ser;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 50
- (D) OTHER INFORMATION: /note= "Xaa at position 50 is Leu, Ile, His, Pro or Tyr;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 54
- (D) OTHER INFORMATION: /note= "Xaa at position 54 is Leu or His;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 64
- (D) OTHER INFORMATION: /note= "Xaa at position 64 is Cys or Ser;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 67
- (D) OTHER INFORMATION: /note = "Xaa at position 67 is Gln, Lys, Leu or Cys;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 70
- (D) OTHER INFORMATION: /note = "Xaa at position 70 is Gln, Pro, Leu, Arg or Ser;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 74
- (D) OTHER INFORMATION: /note= "Xaa at position 74 is Cys or Ser;"

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 104
- (D) OTHER INFORMATION: /note = "Xaa at position 104 is Asp, Gly or Val;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 108
- (D) OTHER INFORMATION: /note= "Xaa at position 108 is Leu, Ala, Val, Arg, Trp, Gln or Gly;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 115
- (D) OTHER INFORMATION: /note= "Xaa at position 115 is Thr, His, Leu or Ala;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 123
- (D) OTHER INFORMATION: /note= "Xaa at position 123 is Glu, Arg, Phe or Thr" $\,$
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 144
- (D) OTHER INFORMATION: /note= "Xaa at position 144 is Phe, His, Arg, Pro, Leu, Gln or Glu;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 146
- (D) OTHER INFORMATION: /note= "Xaa at position 146 is Arg or Gln;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 147
- (D) OTHER INFORMATION: /note= "Xaa at position 147 is Arg or Gln;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 156
- (D) OTHER INFORMATION: /note = "Xaa at position 156 is His, Gly or Ser;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 159
- (D) OTHER INFORMATION: /note= "Xaa at position 159 is Ser, Arg, Thr, Tyr, Val or Gly;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site

- (B) LOCATION: 162
- (D) OTHER INFORMATION: /note= "Xaa at position 162 is Glu, Leu, Gly or Trp;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 163
- (D) OTHER INFORMATION: /note= "Xaa at position 163 is Val, Gly, Arg or Ala;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 169
- (D) OTHER INFORMATION: /note= "Xaa at position 169 is Arg, Ser, Leu, Arg or Cys;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 170
- (D) OTHER INFORMATION: /note = "Xaa at position 170 is His, Arg or Ser;"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

- Xaa Xaa Xaa Gly Pro Ala Ser Ser Leu Pro Gln Ser Xaa Leu Leu Xaa 1 5 10 15
- Xaa Xaa Glu Gln Val Xaa Lys Xaa Gln Gly Xaa Gly Ala Xaa Leu Gln 20 25 30
- Glu Xaa Leu Xaa Ala Thr Tyr Lys Leu Xaa Xaa Xaa Glu Xaa Xaa Val 35 40 45
- Xaa Xaa Gly His Ser Xaa Gly Ile Pro Trp Ala Pro Leu Ser Ser Xaa 50 55 60
- Pro Ser Xaa Ala Leu Xaa Leu Ala Gly Xaa Leu Ser Gln Leu His Ser 65 70 75 80
- Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser 85 90 95
- Pro Glu Leu Gly Pro Thr Leu Xaa Thr Leu Gln Xaa Asp Val Ala Asp 100 105 110
- Phe Ala Xaa Thr Ile Trp Gln Gln Met Glu Xaa Leu Gly Met Ala Pro 115 120 125
- Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Xaa 130 135 140
- Gln Xaa Xaa Ala Gly Gly Val Leu Val Ala Ser Xaa Leu Gln Xaa Phe 145 150 155 160
- Leu Xaa Xaa Ser Tyr Arg Val Leu Xaa Xaa Leu Ala Gln Pro 165 170

(2) INFORMATION FOR SEQ ID NO:2:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 133 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: protein
- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 17
- (D) OTHER INFORMATION: /note= "Xaa at position 17 is Ser, Lys, Gly, Asp, Met, Gln, or Arg;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 18
- (D) OTHER INFORMATION: /note= "Xaa at position 18 is Asn, His, Leu, Ile, Phe, Arg, or Gln;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 19
- (D) OTHER INFORMATION: /note= "Xaa at position 19 is Met, Phe, Ile, Arg, Gly, Ala, or Cys;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 20
- (D) OTHER INFORMATION: /note= "Xaa at position 20 is Ile, Cys, Gln, Glu, Arg, Pro, or Ala;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 21
- (D) OTHER INFORMATION: /note= "Xaa at position 21 is Asp, Phe, Lys, Arg, Ala, Gly, Glu, Gln, Asn, Thr, Ser or Val;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 22
- (D) OTHER INFORMATION: /note= "Xaa at position 22 is Glu, Trp, Pro, Ser, Ala, His, Asp, Asn, Gln, Leu, Val or Gly;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 23
- (D) OTHER INFORMATION: /note= "Xaa at position 23 is Ile, Val, Ala, Gly, Trp, Lys, Phe, Leu, Ser, or Arg;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 24

(D) OTHER INFORMATION: /note= "Xaa at position 24 is Ile, Gly, Val, Arg, Ser, Phe, Leu;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 25
- (D) OTHER INFORMATION: /note= "Xaa at position 25 is Thr, His, Gly, Gln, Arg, Pro, or Ala;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 26
- (D) OTHER INFORMATION: /note= "Xaa at position 26 is His, Thr, Phe, Gly, Arg, Ala, Trp;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 27
- (D) OTHER INFORMATION: /note= "Xaa at position 27 is Leu, Gly, Arg, Thr, Ser, or Ala;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 28
- (D) OTHER INFORMATION: /note= "Xaa at position 28 is Lys, Arg, Leu, Gln, Gly, Pro, Val or Trp;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 29
- (D) OTHER INFORMATION: /note= "Xaa at position 29 is Gln, Asn, Leu, Pro, Arg, or Val;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 30
- (D) OTHER INFORMATION: /note= "Xaa at position 30 is Pro, His, Thr, Gly, Asp, Gln, Ser, Leu, or L..."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 31
- (D) OTHER INFORMATION: /note= "Xaa at position 31 is Pro, Asp, Gly, Ala, Arg, Leu, or Gln;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 32
- (D) OTHER INFORMATION: /note= "Xaa at position 32 is Leu, Val, Arg, Gln, Asn, Gly, Ala, or Glu;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 33
- (D) OTHER INFORMATION: /note= "Xaa at position 33 is Pro, Leu, Gln, Ala, Thr, or Glu;"

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 34
- (D) OTHER INFORMATION: /note= "Xaa at position 34 is Leu, Val, Gly, Ser, Lys, Glu, Gln, Thr, Arg, Ala, Phe, Ile or Met;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 35
- (D) OTHER INFORMATION: /note= "Xaa at position 35 is Leu, Ala, Gly, Asn, Pro, Gln, or Val;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 36
- (D) OTHER INFORMATION: /note= "Xaa at position 36 is Asp, Leu, or Val;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 37
- (D) OTHER INFORMATION: /note= "Xaa at position 37 is Phe, Ser, Pro, Trp, or Ile;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 38
- (D) OTHER INFORMATION: /note = "Xaa at position 38 is Asn, or Ala;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 40
- (D) OTHER INFORMATION: /note = "Xaa at position 40 is Leu, Trp, or Arg;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 41
- (D) OTHER INFORMATION: /note= "Xaa at position 41 is Asn, Cys, Arg, Leu, His, Met, or pro;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 42
- (D) OTHER INFORMATION: /note= "Xaa at position 42 is Gly, Asp, Ser, Cys, Asn, Lys, Thr, Leu, Val, Glu, Phe, Tyr, Ile, Met or Ala;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 43
- (D) OTHER INFORMATION: /note= "Xaa at position 43 is Glu, Asn, Tyr, Leu, Phe, Asp, Ala, Cys, Gln, Arg, Thr, Gly, or Ser;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site

- (B) LOCATION: 44
- (D) OTHER INFORMATION: /note= "Xaa at position 44 is Asp, Ser, Leu, Arg, Lys, Thr, Met, Trp, Glu, Asn, Gln, Ala or Pro;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 45
- (D) OTHER INFORMATION: /note= "Xaa at position 45 is Gln, Pro, Phe, Val, Met, Leu, Thr, Lys, Trp, Asp, Asn, Arg, Ser, Ala, Ile, Glu or His;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 46
- (D) OTHER INFORMATION: /note= "Xaa at position 46 is Asp, Phe, Ser, Thr, Cys, Glu, Asn, Gln, Lys, His, Ala, Tyr, Ile, Val or Gly;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 47
- (D) OTHER INFORMATION: /note= "Xaa at position 47 is Ile, Gly, Val, Ser, Arg, Pro, or His;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 48
- (D) OTHER INFORMATION: /note= "Xaa at position 48 is Leu, Ser, Cys, Arg, Ile, His, Phe, Glu, Lys, Thr, Ala, Met, Val or Asn;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 49
- (D) OTHER INFORMATION: /note= "Xaa at position 49 is Met, Arg, Ala, Gly, Pro, Asn, His, or Asp;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 50
- (D) OTHER INFORMATION: /note= "Xaa at position 50 is Glu, Leu, Thr, Asp, Tyr, Lys, Asn, Ser, Ala, Ile, Val, His, Phe, Met or Gln;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 51
- (D) OTHER INFORMATION: /note= "Xaa at position 51 is Asn, Arg, Met, Pro, Ser, Thr, or his;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 52
- (D) OTHER INFORMATION: /note= "Xaa at position 52 is Asn, His, Arg, Leu, Gly, Ser, or Thr;"

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 53
- (D) OTHER INFORMATION: /note= "Xaa at position 53 is Leu, Thr, Ala, Gly, Glu, Pro, Lys, Ser, or M..."
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 54
- (D) OTHER INFORMATION: /note= "Xaa at position 54 is Arg, Asp, Ile, Ser, Val, Thr, Gln, Asn, Lys, His, Ala or Leu;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 55
- (D) OTHER INFORMATION: /note= "Xaa at position 55 is Arg, Thr, Val, Ser, Leu, or Gly;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 56
- (D) OTHER INFORMATION: /note= "Xaa at position 56 is Pro, Gly, Cys, Ser, Gln, Glu, Arg, His, Thr, Ala, Tyr, Phe, Leu, Val or Lys;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 57
- - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 58
- (D) OTHER INFORMATION: /note= "Xaa at position 58 is Leu, Ser, Asp, Arg, Gln, Val, or Cys;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 59
- (D) OTHER INFORMATION: /note= "Xaa at position 59 is Glu, Tyr, His, Leu, Pro, or Arg;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 60
- (D) OTHER INFORMATION: /note= "Xaa at position 60 is Ala, Ser, Pro, Tyr, Asn, or Thr;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 61
- (D) OTHER INFORMATION: /note= "Xaa at position 61 is Phe, Asn, Glu, Pro, Lys, Arg, or Ser;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 62
- (D) OTHER INFORMATION: /note= "Xaa at position 62 is Asn, His, Val, Arg, Pro, Thr, Asp, or Ile;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 63
- (D) OTHER INFORMATION: /note= "Xaa at position 63 is Arg, Tyr, Trp, Lys, Ser, His, Pro, or Val;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 64
- (D) OTHER INFORMATION: /note= "Xaa at position 64 is Ala, Asn, Pro, Ser, or Lys;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 65
- (D) OTHER INFORMATION: /note= "Xaa at position 65 is Val, Thr, Pro, His, Leu, Phe, or Ser;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 66
- (D) OTHER INFORMATION: /note= "Xaa at position 66 is Lys, Ile, Arg, Val, Asn, Glu, or Ser;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 67
- (D) OTHER INFORMATION: /note= "Xaa at postion 67 is Ser, Ala, Phe, Val, Gly, Asn, Ile, Pro, or His;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 68
- (D) OTHER INFORMATION: /note= "Xaa at position 68 is Leu, Val, Trp, Ser, Ile, Phe, Thr, or His;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 69
- (D) OTHER INFORMATION: /note= "Xaa at position 69 is Gln, Ala, Pro, Thr, Glu, Arg, Trp, Gly, or L..."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 70
- (D) OTHER INFORMATION: /note= "Xaa at position 70 is Asn, Leu, Val, Trp, pro, or Ala;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 71

(D) OTHER INFORMATION: /note= "Xaa at position 71 is Ala, Met, Leu, Pro, Arg, Glu, Thr, Gln, Trp, or Asn;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 72
- (D) OTHER INFORMATION: /note= "Xaa at position 72 is Ser, Glu, Met, Ala, His, Asn, Arg, or Asp;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 73
- (D) OTHER INFORMATION: /note= "Xaa at position 73 is Ala, Glu, Asp, Leu, Ser, Gly, Thr, or Arg;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 74
- (D) OTHER INFORMATION: /note= "Xaa at position 74 is Ile, Met, Thr, Pro, Arg, Gly, Ala;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 75
- (D) OTHER INFORMATION: /note= "Xaa at position 75 is Glu, Lys, Gly, Asp, Pro, Trp, Arg, Ser, Gln, or Leu;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 76
- (D) OTHER INFORMATION: /note= "Xaa at position 76 is Ser, Val, Ala, Asn, Trp, Glu, Pro, Gly, or A..."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 77
- (D) OTHER INFORMATION: /note= "Xaa at position 77 is Ile, Ser, Arg, Thr, or Leu;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 78
- (D) OTHER INFORMATION: /note= "Xaa at position 78 is Leu, Ala, Ser, Glu, Phe, Gly, or Arg;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 79
- (D) OTHER INFORMATION: /note= "Xaa at position 79 is Lys, Thr, Asn, Met, Arg, Ile, Gly, or Asp;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 80
- (D) OTHER INFORMATION: /note= "Xaa position at 80 is Asn, Trp, Val, Gly, Thr, Leu, Glu, or Arg;"

- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 81
- (D) OTHER INFORMATION: /note= "Xaa at position 81 is Leu, Gln, Gly, Ala, Trp, Arg, Val, or Lys;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 82
- (D) OTHER INFORMATION: /note= "Xaa at position 82 is Leu, Gln, Lys, Trp, Arg, Asp, Glu, Asn, His, Thr, Ser, Ala, Tyr, Phe, Ile, Met or Val;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 83
- (D) OTHER INFORMATION: /note= "Xaa at position 83 is Pro, Ala, Thr, Trp, Arg, or Met;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 84
- (D) OTHER INFORMATION: /note= "Xaa at position 84 is Cys, Glu, Gly, Arg, Met, or Val;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 85
- (D) OTHER INFORMATION: /note= "Xaa at position 85 is Leu, Asn, Val, or Gln;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 86
- (D) OTHER INFORMATION: /note = "Xaa at position 86 is Pro, Cys, Arg, Ala, or Lys;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 87
- (D) OTHER INFORMATION: /note = "Xaa at position 87 is Leu, Ser, Trp, or Gly;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 88
- (D) OTHER INFORMATION: /note= "Xaa at position 88 is Ala, Lys, Arg, Val, or Trp;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 89
- (D) OTHER INFORMATION: /note= "Xaa at position 89 is Thr, Asp, Cys, Leu, Val, Glu, His, Asn, or S..."
 - (ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 90
- (D) OTHER INFORMATION: /note= "Xaa at position 90 is Ala, Pro, Ser, Thr, Gly, Asp, Ile, or ,Met;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 91
- (D) OTHER INFORMATION: /note= "Xaa at position 91 is Ala, Pro, Ser, Thr, Phe, Leu, Asp, or His;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 92
- (D) OTHER INFORMATION: /note= "Xaa at position 92 is Pro, Phe, Arg, Ser, Lys, His, Ala, Gly, Ile or Leu;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 93
- (D) OTHER INFORMATION: /note= "Xaa at position 93 is Thr, Asp, Ser, Asn, Pro, Ala, Leu, or Arg;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 94
- (D) OTHER INFORMATION: /note= "Xaa at position 94 is Arg, Ile, Ser, Glu, Leu, Val, Gln, Lys, His, Ala, or Pro;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 95
- (D) OTHER INFORMATION: /note= "Xaa at position 95 is His, Gln, Pro, Arg, Val, Leu, Gly, Thr, Asn, Lys, Ser, Ala, Trp, Phe, Ile, or Tyr;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 96
- (D) OTHER INFORMATION: /note= "Xaa at position 96 is Pro, Lys, Tyr, Gly, Ile, or Thr;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 97
- (D) OTHER INFORMATION: /note= "Xaa at position 97 is Ile, Val, Lys, Ala, or Asn;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 98
- (D) OTHER INFORMATION: /note= "Xaa at position 98 is His, Ile, Asn, Leu, Asp, Ala, Thr, Glu, Gln, Ser, Phe, Met, Val, Lys, Arg, Tyr, or Pro;"

(ix) FEATURE:

(A) NAME/KEY: Modified-site

- (B) LOCATION: 99
- (D) OTHER INFORMATION: /note= "Xaa at position 99 is Ile, Leu, Arg, Asp, Val, Pro, Gln, Gly, Ser, Phe, or His;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 100
- (D) OTHER INFORMATION: /note= "Xaa at position 100 is Lys, Tyr, Leu, His, Arg, Ile, Ser, Gln, or ..."

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 101
- (D) OTHER INFORMATION: /note= "Xaa at position is Asp, Pro, Met, Lys, His, Thr, Val, Tyr, Glu, Asn, Ser, Ala, Gly, Ile, Leu, or Gln;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 102
- (D) OTHER INFORMATION: /note= "Xaa at position 102 is Gly, Leu, Glu, Lys, Ser, Tyr, or Pro;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 103
- (D) OTHER INFORMATION: /note = "Xaa at position 103 is Asp, or Ser;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 104
- (D) OTHER INFORMATION: /note= "Xaa at position 104 is Trp, Val, Cys, Tyr, Thr, Met, Pro, Leu, Gln, Lys, Ala, Phe, or Gly;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 105
- (D) OTHER INFORMATION: /note= "Xaa at position 105 is Asn, Pro, Ala, Phe, Ser, Trp, Gln, Tyr, Leu, Lys, Ile, Asp, or His;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 106
- (D) OTHER INFORMATION: /note= "Xaa at position 106 is Glu, Ser, Ala, Lys, Thr, Ile, Gly, or Pro;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 108
- (D) OTHER INFORMATION: /note= "Xaa at position 108 is Arg, Lys, Asp, Leu, Thr, Ile, Gln, His, Ser, Ala or Pro;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 109

(D) OTHER INFORMATION: /note= "Xaa at position 109 is Arg, Thr, Pro, Glu, Tyr, Leu, Ser, or Gly;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 110
- (D) OTHER INFORMATION: /note= "Xaa at position 110 is Lys, Ala, Asn, Thr, Leu, Arg, Gln, His, Glu, Ser, or Trp;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 111
- (D) OTHER INFORMATION: /note= "Xaa at position 111 is Leu, Ile, Arg, Asp, or Met;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 112
- (D) OTHER INFORMATION: /note= "Xaa at position 112 is Thr, Val, Gln, Tyr, Glu, His, Ser, or Phe;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 113
- (D) OTHER INFORMATION: /note= "Xaa at position 113 is Phe, Ser, Cys, His, Gly, Trp, Tyr, Asp, Lys, Leu, Ile, Val or Asn;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 114
- (D) OTHER INFORMATION: /note= "Xaa at position 114 is Tyr, Cys, His, Ser, Trp, Arg, or Leu;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 115
- (D) OTHER INFORMATION: /note= "Xaa at position 115 is Leu, Asn, Val, Pro, Arg, Ala, His, Thr, Trp, or Met;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 116
- (D) OTHER INFORMATION: /note= "Xaa at position 116 is Lys, Leu, Pro, Thr, Met, Asp, Val, Glu, Arg, Trp, Ser, Asn, His, Ala, Tyr, Phe, Gln, or Ile;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 117
- (D) OTHER INFORMATION: /note= "Xaa at position 117 is Thr, Ser, Asn, Ile, Trp, Lys, or Pro;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 118
- (D) OTHER INFORMATION: /note= "Xaa at position 118 is Leu, Ser, Pro, Ala, Glu, Cys, Asp, or Tyr;"

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 119
- (D) OTHER INFORMATION: /note= "Xaa at position 119 is Glu, Ser, Lys, Pro, leu, Thr, Tyr, or Arg;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 120
- (D) OTHER INFORMATION: /note= "Xaa at position 120 is Asn, Ala, Pro, Leu, His, Val, or Gln;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 121
- (D) OTHER INFORMATION: /note= "Xaa at position 121 is Ala, Ser, Ile, Asn, Pro, Lys, Asp, or Gly;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 122
- (D) OTHER INFORMATION: /note= "Xaa at position 122 is Gln, Ser, Met, Trp, Arg, Phe, Pro, His, Ile, Tyr, or Cys;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 123
- (D) OTHER INFORMATION: /note= "Xaa at position 123 is Ala, Met, Glu, His, Ser, Pro, Tyr, or Leu;"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Ala Pro Met Thr Gln Thr Thr Ser Leu Lys Thr Ser Trp Val Asn Cys $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa IOO 105 110

Ser Leu Ala Ile Phe 130

(2) INFORMATION FOR SEQ ID NO:3:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 332 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: protein
- (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 112
- (D) OTHER INFORMATION: /note= "position 112 is deleted or Leu, Ala, Val, Ile, Pro, Phe, Trp, or M..."
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 113
- (D) OTHER INFORMATION: /note= "position 113 is deleted or Pro, Phe, Ala, Leu, Ile, Trp, or Met"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 114
- (D) OTHER INFORMATION: /note= "position 114 is deleted or Pro, Phe, Ala, Val, Leu, Ile, Trp or Met"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 115
- (D) OTHER INFORMATION: /note= "position 115 is deleted or Gln, Gly, Ser, Thr, Tyr or Asn"
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:
 - Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 5 10 15
 - Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
 20 25 30
 - His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45
 - Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 50 55 60
 - Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 80

Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 8.5 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Xaa 100 105 Xaa Xaa Xaa Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu Pro Asn 165 170 Arg Thr Ser Gly Leu Leu Glu Thr Asn Phe Thr Ala Ser Ala Arg Thr 180 185 Thr Gly Ser Gly Leu Leu Lys Trp Gln Gln Gly Phe Arg Ala Lys Ile 200 Pro Gly Leu Leu Asn Gln Thr Ser Arg Ser Leu Asp Gln Ile Pro Gly 210 215 Tyr Leu Asn Arg Ile His Glu Leu Leu Asn Gly Thr Arg Gly Leu Phe Pro Gly Pro Ser Arg Arg Thr Leu Gly Ala Pro Asp Ile Ser Ser Gly 250 Thr Ser Asp Thr Gly Ser Leu Pro Pro Asn Leu Gln Pro Gly Tyr Ser 260 265 Pro Ser Pro Thr His Pro Pro Thr Gly Gln Tyr Thr Leu Phe Pro Leu 280 Pro Pro Thr Leu Pro Thr Pro Val Val Gln Leu His Pro Leu Leu Pro 290 295 300 Asp Pro Ser Ala Pro Thr Pro Thr Pro Thr Ser Pro Leu Leu Asn Thr 305 310 315 Ser Tyr Thr His Ser Gln Asn Leu Ser Gln Glu Gly

(2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 5 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:
```

(2) INFORMATION FOR SEQ ID NO:5:

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(i) SEQUENCE CHARACTERISTICS:
```

- (A) LENGTH: 3 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:

GYSRN

- (A) NAME/KEY: Peptide
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /note= "where x=(glyglyglyglyser)n and where n is an interger"
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Xaa Ala Ala 1

- (2) INFORMATION FOR SEQ ID NO:6:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 3 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: peptide
 - (ix) FEATURE:
 - (A) NAME/KEY: Peptide
 - (B) LOCATION: 1
 - (ix) FEATURE:
 - (A) NAME/KEY: Peptide
 - (B) LOCATION: 1
 - (D) OTHER INFORMATION: /note= "where Xaa = (glyglyglyglyglyser)n and where n is an integer"
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Xaa Ala Ala

5

```
(2) INFORMATION FOR SEO ID NO:7:
     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 3 amino acids
          (B) TYPE: amino acid
          (C) STRANDEDNESS: unknown
          (D) TOPOLOGY: unknown
    (ii) MOLECULE TYPE: peptide
    (ix) FEATURE:
          (A) NAME/KEY: Peptide
          (B) LOCATION: 1
          (D) OTHER INFORMATION: /note= "where xaa = (gly(n)ser)m
 and where n is an integer and m is an int..."
    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:
    Xaa Ala Ala
(2) INFORMATION FOR SEQ ID NO:8:
     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 3 amino acids
          (B) TYPE: amino acid
          (C) STRANDEDNESS: unknown
          (D) TOPOLOGY: unknown
    (ii) MOLECULE TYPE: peptide
    (ix) FEATURE:
          (A) NAME/KEY: Peptide
          (B) LOCATION: 1
          (D) OTHER INFORMATION: /note= "where Xaa=(alaglyser)n and
 where n is an integer"
    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:
    Xaa Ala Ala
(2) INFORMATION FOR SEQ ID NO:9:
     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 36 amino acids
          (B) TYPE: amino acid
          (C) STRANDEDNESS: unknown
          (D) TOPOLOGY: linear
    (ii) MOLECULE TYPE: protein
```

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Gly Gly Gly Ser Gly Gly Ser Gly Gly Gly Ser Glu Gly Gly 1 5 10 15

Ser Glu Gly Gly Ser Glu Gly Gly Ser Glu Gly Gly Ser 20 25 30

Gly Gly Gly Ser 35

- (2) INFORMATION FOR SEQ ID NO:10:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 24 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Ile Ser Glu Pro Ser Gly Pro Ile Ser Thr Ile Asn Pro Ser Pro Pro 1 5 10 15

Ser Lys Glu Ser His Lys Ser Pro 20

- (2) INFORMATION FOR SEQ ID NO:11:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 28 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Ile Glu Gly Arg Ile Ser Glu Pro Ser Gly Pro Ile Ser Thr Ile Asn 1 5 10 15

Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 20 25

(2) INFORMATION FOR SEQ ID NO:12:

(A) LENGTH: 4 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: unknown (D) TOPOLOGY: unknown (ii) MOLECULE TYPE: peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12: Gly Gly Gly Ser (2) INFORMATION FOR SEQ ID NO:13: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 45 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13: ACGTCCATGG CNTCNCCNGC NCCNCCTGCT TGTGCACTCC GAGTC 45 (2) INFORMATION FOR SEQ ID NO:14: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 30 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14: ATGCACGAAT TCCCTGACGC AGAGGGTGGA 30 (2) INFORMATION FOR SEQ ID NO:15: (i) SEQUENCE CHARACTERISTICS:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 33 base pairs

| | <pre>(C) STRANDEDNESS: single (D) TOPOLOGY: linear</pre> | |
|---|--|----|
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15: | |
| Т | FGACAAGCTT ACCTGACGCA GAGGGTGGAC CCT | 33 |
| (| (2) INFORMATION FOR SEQ ID NO:16: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 10 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16: | |
| A | AATTCGGCAA | 10 |
| (| (2) INFORMATION FOR SEQ ID NO:17: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 10 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" .</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17: | |
| C | CATGTTGCCG | 10 |
| (| (2) INFORMATION FOR SEQ ID NO:18: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 13 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |

(B) TYPE: nucleic acid

| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
|------|-------|--|----|
| | (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:18: | |
| AATI | rcggc | GG CAA | 13 |
| (2) | INFO | RMATION FOR SEQ ID NO:19: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 13 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| | (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:19: | |
| CATO | GTTGC | CG CCG | 13 |
| (2) | INFO | RMATION FOR SEQ ID NO:20: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 22 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| | (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:20: | |
| TAA | rcggc | GG CAACGGCGGC AA | 22 |
| (2) | INFO | RMATION FOR SEQ ID NO:21: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 22 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |

| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21: | |
|-------|--|----|
| CATG | TTGCCG CCGTTGCCGC CG | 22 |
| (2) | INFORMATION FOR SEQ ID NO:22: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 27 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22: | |
| CGAT | CCATGG AGGTTCACCC TTTGCCT | 27 |
| (2) | INFORMATION FOR SEQ ID NO:23: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 29 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23: | |
| GATC. | AAGCTT ATGGGCACTG GCTCAGTCT | 29 |
| (2) | INFORMATION FOR SEQ ID NO:24: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 27 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |

| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24: | |
|------|--|----|
| CGAT | PACATGT TGCCTACACC TGTCCTG | 27 |
| (2) | INFORMATION FOR SEQ ID NO:25: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 29 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:25: | |
| GATC | CAAGCTT AAGGGTGAAC CTCTGGGCA | 29 |
| (2) | INFORMATION FOR SEQ ID NO:26: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 27 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:26: | |
| CGAT | CCATGG TCCTGCTGCC TGCTGTG | 27 |
| (2) | INFORMATION FOR SEQ ID NO:27: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 29 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:27:

| GATCAAGCTT AAGGTGTAGG CAAAGGGTG | 29 |
|--|----|
| (2) INFORMATION FOR SEQ ID NO:28: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 30 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:28: | |
| CGATCCATGG CTGTGGACTT TAGCTTGGGA | 30 |
| (2) INFORMATION FOR SEQ ID NO:29: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 29 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29: | |
| GATCAAGCTT AAGGCAGCAG GACAGGTGT | 29 |

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 27 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:30:

| (2) INFO | RMATION FOR SEQ ID NO:31: | |
|----------|--|---|
| (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 29 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:31: | |
| GATCAAGC | TT ACACAGCAGG CAGCAGGAC | 2 |
| (2) INFO | RMATION FOR SEQ ID NO:32: | |
| (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 27 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:32: | |
| CGATCCAT | GG GAGAATGGAA AACCCAG | 2 |
| (2) INFO | RMATION FOR SEQ ID NO:33: | |
| | SEQUENCE CHARACTERISTICS: (A) LENGTH: 29 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:33: | |
| GATCAAGC | TT ACAAGCTAAA GTCCACAGC | 2 |
| (2) INFO | RMATION FOR SEQ ID NO:34: | |
| (i) | SEQUENCE CHARACTERISTICS: | |

| (A) LENGTH: 27 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
|--|----|
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:34: | |
| CGATCCATGG GACCCACTTG CCTCTCA | 27 |
| (2) INFORMATION FOR SEQ ID NO:35: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 29 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:35: GATCAAGCTT ACAGTTGTCC CCGTGCTGC | 29 |
| (2) INFORMATION FOR SEQ ID NO:36: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 27 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:36: | |
| CAGTCCATGG GAACCCAGCT TCCTCCA | 27 |
| (2) INFORMATION FOR SEQ ID NO:37: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 29 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single | |

| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
|--|----|
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:37: | |
| GATCAAGCTT AAAGGAGGCT CTGCAGGGC | 29 |
| (2) INFORMATION FOR SEQ ID NO:38: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 27 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:38: | |
| CGATCCATGG GCAGGACCAC AGCTCAC | 27 |
| (2) INFORMATION FOR SEQ ID NO:39: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 30 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:39: | |
| GATCAAGCTT ACTGTGGAGG AAGCTGGGTT | 30 |
| (2) INFORMATION FOR SEQ ID NO:40: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 30 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| (ii) MOLECULE TYPE: other nucleic acid | |

(D) TOPOLOGY: linear

| | | (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
|------|--------|--|----|
| | (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:40: | |
| CGAT | CCAT | GG CTCACAAGGA TCCCAATGCC | 30 |
| (2) | INFO | RMATION FOR SEQ ID NO:41: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 29 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| | (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:41: | |
| GAT | CAAGC' | TT ATGTGGTCCT GCGCTGTGG | 29 |
| (2) | INFO | RMATION FOR SEQ ID NO:42: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 30 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| CGAT | | SEQUENCE DESCRIPTION: SEQ ID NO:42: GG ATCCCAATGC CATCTTCCTG | 30 |
| | | | |
| (2) | INFO | RMATION FOR SEQ ID NO:43: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 29 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |

| (| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:43: | |
|-------|--|----|
| GATCA | AAGCTT ACTTGTGAGC TGTGGTCCT | 29 |
| (2) I | INFORMATION FOR SEQ ID NO:44: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 30 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| (| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:44: | |
| CGATO | CCATGG CCATCTTCCT GAGCTTCCAA | 30 |
| (2) I | INFORMATION FOR SEQ ID NO:45: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 32 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| (| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:45: | |
| GATCA | AAGCTT AATTGGGATC CTTGTGAGCT GT | 32 |
| (2) I | INFORMATION FOR SEQ ID NO:46: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 83 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: unknown(D) TOPOLOGY: unknown | |
| (| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "SYNTHETIC"</pre> | |

| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:46: | |
|--|----|
| AATTCCGTCG TAAACTGACC TTCTATCTGA AAACCTTGGA GAACGCGCAG GCTCAACAGT | 60 |
| ACGTAGAGGG CGGTGGAGGC TCC | 83 |
| (2) INFORMATION FOR SEQ ID NO:47: | |
| (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 83 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:47: | |
| CCGGGGAGCC TCCACCGCCC TCTACGTACT GTTGAGCCTG CGCGTTCTCC AAGGTTTTCA | 60 |
| GATAGAAGGT CAGTTTACGA CGG | 83 |
| (2) INFORMATION FOR SEQ ID NO:48: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 59 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:48: | |
| GTTACCCTTG AGCAAGCGCA GGAACAACAG GGTGGTGGCT CTAACTGCTC TATAATGAT | 59 |
| (2) INFORMATION FOR SEQ ID NO:49: | |
| (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 56 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |

| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:49: | |
|--|----|
| CGATCATTAT AGAGCAGTTA GAGCCACCAC CCTGTTGTTC CTGCGCTTGC TCAAGG | 56 |
| (2) INFORMATION FOR SEQ ID NO:50: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 80 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:50: | |
| GTTACCCTTG AGCAAGCGCA GGAACAACAG GGTGGTGGCT CTGGCGGTGG CAGCGGCGGC | 60 |
| GGTTCTAACT GCTCTATAAT | 80 |
| (2) INFORMATION FOR SEQ ID NO:51: | |
| (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 80 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:51: | |
| CGATCATTAT AGAGCAGTTA GAACCGCCGC CGCTGCCACC GCCAGAGCCA CCACCCTGTT | 60 |
| GTTCCTGCGC TTGCTCAAGG | 80 |
| (2) INFORMATION FOR SEQ ID NO:52: | |
| (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 30 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |

| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:52: | |
|-----|--|----|
| GAT | CGACCAT GGCTCTGGAC CCGAACAACC | 30 |
| (2) | INFORMATION FOR SEQ ID NO:53: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 28 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:53: | |
| CTC | GATTACG TACAAAGGTG CAGGTGGT | 28 |
| (2) | INFORMATION FOR SEQ ID NO:54: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 32 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:54: | |
| GAT | CGACCAT GGCTAATGCA TCAGGTATTG AG | 32 |
| (2) | INFORMATION FOR SEQ ID NO:55: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 28 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:55:

| CTCCATTACC | ͲΔͲͲϹͲΔΔGͲ | ጥርጥጥር አር አ |
|---|---|--------------------|
| $I \cap I \cap$ | $\Delta \Delta $ | Tre Trible 4 A C 4 |

28

| CTCGATTACG TATTCTAAGT TCTTGACA | 28 |
|--|----|
| (2) INFORMATION FOR SEQ ID NO:56: | |
| (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 32 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:56: | |
| GATCGACCAT GGCTGCACCC TCTCGACATC CA | 32 |
| (2) INFORMATION FOR SEQ ID NO:57: | |
| (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 28 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:57: | |
| CTCGATTACG TAGGCCGTGG CAGAGGGC | 28 |
| (2) INFORMATION FOR SEQ ID NO:58: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 32 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:58:

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

| (2 | 2) INFORMATION FOR SEQ ID NO:59: | |
|----|--|----|
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 28 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:59: | |
| C | TCGATTACG TACTTGATGA TGATTGGA | 28 |
| (2 | 2) INFORMATION FOR SEQ ID NO:60: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 54 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:60: | |
| GC | CTCTGAGAG CCGCCAGAGG CTGCGCAAGG TGGCGTAGAA CGCG | 54 |
| (2 | 2) INFORMATION FOR SEQ ID NO:61: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 54 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:61: | |
| CF | AGCCCTCTG GCGGCTCTGG CGGCTCTCAG AGCTTCCTGC TCAAGTCTTT AGAG | 54 |
| (2 | 2) INFORMATION FOR SEQ ID NO:62: | |

| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 18 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
|------|-------|--|----|
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| | (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:62: | |
| GGG | CTGCG | CA AGGTGGCG | 18 |
| (2) | INFO | RMATION FOR SEQ ID NO:63: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 21 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| | (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:63: | |
| ACA | CCATT | GG GCCCTGCCAG C | 21 |
| (2) | INFO | RMATION FOR SEQ ID NO:64: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 32 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| | (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:64: | |
| GATO | CGACC | AT GGCTTACAAG CTGTGCCACC CC | 32 |
| (2) | INFO | RMATION FOR SEQ ID NO:65: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 36 base pairs | |

| | (B) TYPE: nucleic acid | |
|-------|--|----|
| | <pre>(C) STRANDEDNESS: single (D) TOPOLOGY: linear</pre> | |
| (| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:65: | |
| CGATC | CGAAGC TTATTAGGTG GCACACAGCT TCTCCT | 36 |
| (2) I | INFORMATION FOR SEQ ID NO:66: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 32 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| (| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:66: | |
| GATCG | GACCAT GGCTCCCGAG TTGGGTCCCA CC | 32 |
| (2) I | INFORMATION FOR SEQ ID NO:67: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 36 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| (| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:67: | |
| | CGAAGC TTATTAGGAT ATCCCTTCCA GGGCCT | 36 |
| (2) I | INFORMATION FOR SEQ ID NO:68: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 32 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single | |

| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
|------|--------|--|----|
| CAR | | SEQUENCE DESCRIPTION: SEQ ID NO:68: AT GGCTATGGCC CCTGCCCTGC AG | 20 |
| GAT | JGACC. | AI GGCIAIGGCC CCIGCCCIGC AG | 32 |
| (2) | INFO | RMATION FOR SEQ ID NO:69: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 36 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| | | SEQUENCE DESCRIPTION: SEQ ID NO:69: | |
| CGAT | rcgaa | GC TTATTATCCC AGTTCTTCCA TCTGCT | 36 |
| (2) | INFO | RMATION FOR SEQ ID NO:70: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 32 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)" | |
| | (xi) | SEQUENCE DESCRIPTION: SEQ ID NO:70: | |
| GATO | CGACC | AT GGCTACCCAG GGTGCCATGC CG | 32 |
| (2) | INFO | RMATION FOR SEQ ID NO:71: | |
| | (i) | SEQUENCE CHARACTERISTICS: (A) LENGTH: 36 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | (ii) | MOLECULE TYPE: other nucleic acid | |

(D) TOPOLOGY: linear

| (A) DESCRIPTION: | <pre>/desc = "DNA (synthetic)"</pre> |
|---|---|
| | |
| | |
| (xi) SEQUENCE DESCRIPT | ION: SEQ ID NO:71: |
| CGATCGAAGC TTATTAGGGC TGCA | GGGCAG GGGCCA 36 |
| (2) INFORMATION FOR SEQ ID | NO:72: |
| (i) SEQUENCE CHARACTE (A) LENGTH: 36 b (B) TYPE: nuclei (C) STRANDEDNESS (D) TOPOLOGY: li | ase pairs c acid : single |
| (ii) MOLECULE TYPE: ot (A) DESCRIPTION: | her nucleic acid /desc = "DNA (synthetic)" |
| (xi) SEQUENCE DESCRIPT | ION: SEQ ID NO:72: |
| CGATCGAAGC TTATTAGGGC TGCA | GGGCAG GGGCCA 36 |
| (2) INFORMATION FOR SEQ ID | NO:73: |
| (i) SEQUENCE CHARACTE (A) LENGTH: 36 b (B) TYPE: nuclei (C) STRANDEDNESS (D) TOPOLOGY: li | ase pairs c acid : single |
| (ii) MOLECULE TYPE: ot (A) DESCRIPTION: | her nucleic acid /desc = "DNA (synthetic)" |
| (xi) SEQUENCE DESCRIPT | |
| CGATCGAAGC TTATTAGGCG AAGG | |
| (2) INFORMATION FOR SEQ ID | NO:74: |
| (i) SEQUENCE CHARACTE (A) LENGTH: 21 b (B) TYPE: nuclei (C) STRANDEDNESS (D) TOPOLOGY: li | ase pairs c acid : single |
| (ii) MOLECULE TYPE: ot (A) DESCRIPTION: | her nucleic acid /desc = "DNA (synthetic)" |

| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:74: | |
|------|--|----|
| GTAC | GAGGGCG GTGGAGGCTC C | 21 |
| (2) | INFORMATION FOR SEQ ID NO:75: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 25 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:75: | |
| CCG | GGGAGCC TCCACCGCCC TCTAC | 25 |
| (2) | INFORMATION FOR SEQ ID NO:76: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 53 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:76: | |
| TTCT | FACGCCA CCTTGCGCAG CCCGGCGGCG GCTCTGACAT GTCTACACCA TTG | 53 |
| (2) | INFORMATION FOR SEQ ID NO:77: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 53 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single | |
| | (D) TOPOLOGY: linear | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |

| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:77: | |
|---|-----|
| CAATGGTGTA GACATGTCAG AGCCGCCGCC GGGCTGCGCA AGGTGGCGTA GAA | 53 |
| (2) INFORMATION FOR SEQ ID NO:78: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 439 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:78: | |
| GCTAACTGCT CTATAATGAT CGATGAAATT ATACATCACT TAAAGAGACC ACCTGCACCT | 60 |
| TTGCTGGACC CGAACAACCT CAATGACGAA GACGTCTCTA TCCTGATGGA CCGAAACCTT | 120 |
| CGACTTCCAA ACCTGGAGAG CTTCGTAAGG GCTGTCAAGA ACTTAGAAAA TGCATCAGGT | 180 |
| ATTGAGGCAA TTCTTCGTAA TCTCCAACCA TGTCTGCCCT CTGCCACGGC CGCACCCTCT | 240 |
| CGACATCCAA TCATCATCAA GGCAGGTGAC TGGCAAGAAT TCCGGGAAAA ACTGACGTTC | 300 |
| TATCTGGTTA CCCTTGAGCA AGCGCAGGAA CAACAGTACG TAGAGGGCGG TGGAGGCTCC | 360 |
| CCGGGTGAAC CGTCTGGTCC AATCTCTACT ATCAACCCGT CTCCTCCGTC TAAAGAATCT | 420 |
| CATAAATCTC CAAACATGT | 439 |
| (2) INFORMATION FOR SEQ ID NO:79: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 465 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: single(D) TOPOLOGY: linear | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "DNA (synthetic)"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:79: | |
| TCCCCAGCTC CACCTGCTTG TGACCTCCGA GTCCTCAGTA AACTGCTTCG TGACTCCCAT | 60 |
| GTCCTTCACA GCAGACTGAG CCAGTGCCCA GAGGTTCACC CTTTGCCTAC ACCTGTCCTG | 120 |
| CTGCCTGCTG TGGACTTTAG CTTGGGAGAA TGGAAAACCC AGATGGAGGA GACCAAGGCA | 180 |

.

| CAGGACATTC | TGGGAGCAGT | GACCCTTCTG | CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | 240 |
|------------|------------|------------|------------|------------|------------|-----|
| CTGGGACCCA | CTTGCCTCTC | ATCCCTCCTG | GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | 300 |
| CTTGGGGCCC | TGCAGAGCCT | CCTTGGAACC | CAGCTTCCTC | CACAGGGCAG | GACCACAGCT | 360 |
| CACAAGGATC | CCAATGCCAT | CTTCCTGAGC | TTCCAACACC | TGCTCCGAGG | AAAGGTGCGT | 420 |
| TTCCTGATGC | TTGTAGGAGG | GTCCACCCTC | TGCGTCAGGG | AATTC | | 465 |

(2) INFORMATION FOR SEQ ID NO:80:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:80:

| TCCCCAGCTC | CACCTGCTTG | TGACCTCCGA | GTCCTCAGTA | AACTGCTTCG | TGACTCCCAT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GTCCTTCACA | GCAGACTGAG | CCAGTGCCCA | GAGGTTCACC | CTTTGCCTAC | ACCTGTCCTG | 120 |
| CTGCCTGCTG | TGGACTTTAG | CTTGGGAGAA | TGGAAAACCC | AGATGGAGGA | GACCAAGGCA | 180 |
| CAGGACATTC | TGGGAGCAGT | GACCCTTCTG | CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | 240 |
| CTGGGACCCA | CTTGCCTCTC | ATCCCTCCTG | GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | 300 |
| CTTGGGGCCC | TGCAGAGCCT | CCTTGGAACC | CAGCTTCCTC | CACAGGGCAG | GACCACAGCT | 360 |
| CACAAGGATC | CCAATGCCAT | CTTCCTGAGC | TTCCAACACC | TGCTCCGAGG | AAAGGTGCGT | 420 |
| TTCCTGATGC | TTGTAGGAGG | GTCCACCCTC | TGCGTCAGGG | AATTCGGCGG | CAACATGGCG | 480 |
| TCTCCCGCTC | CGCCTGCTTG | TGACCTCCGA | GTCCTCAGTA | AACTGCTTCG | TGACTCCCAT | 540 |
| GTCCTTCACA | GCAGACTGAG | CCAGTGCCCA | GAGGTTCACC | CTTTGCCTAC | ACCTGTCCTG | 600 |
| CTGCCTGCTG | TGGACTTTAG | CTTGGGAGAA | TGGAAAACCC | AGATGGAGGA | GACCAAGGCA | 660 |
| CAGGACATTC | TGGGAGCAGT | GACCCTTCTG | CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | 720 |
| CTGGGACCCA | CTTGCCTCTC | ATCCCTCCTG | GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | 780 |
| CTTGGGGCCC | TGCAGAGCCT | CCTTGGAACC | CAGGGCAGGA | CCACAGCTCA | CAAGGATCCC | 840 |
| AATGCCATCT | TCCTGAGCTT | CCAACACCTG | CTCCGAGGAA | AGGTGCGTTT | CCTGATGCTT | 900 |

(2) INFORMATION FOR SEQ ID NO:81:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 936 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:81:

| TCCCCAGCTC | CACCTGCTTG | TGACCTCCGA | GTCCTCAGTA | AACTGCTTCG | TGACTCCCAT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GTCCTTCACA | GCAGACTGAG | CCAGTGCCCA | GAGGTTCACC | CTTTGCCTAC | ACCTGTCCTG | 120 |
| CTGCCTGCTG | TGGACTTTAG | CTTGGGAGAA | TGGAAAACCC | AGATGGAGGA | GACCAAGGCA | 180 |
| CAGGACATTC | TGGGAGCAGT | GACCCTTCTG | CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | 240 |
| CTGGGACCCA | CTTGCCTCTC | ATCCCTCCTG | GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | 300 |
| CTTGGGGCCC | TGCAGAGCCT | CCTTGGAACC | CAGCTTCCTC | CACAGGGCAG | GACCACAGCT | 360 |
| CACAAGGATC | CCAATGCCAT | CTTCCTGAGC | TTCCAACACC | TGCTCCGAGG | AAAGGTGCGT | 420 |
| TTCCTGATGC | TTGTAGGAGG | GTCCACCCTC | TGCGTCAGGG | AATTCGGCAA | CATGGCGTCT | 480 |
| CCCGCTCCGC | CTGCTTGTGA | CCTCCGAGTC | CTCAGTAAAC | TGCTTCGTGA | CTCCCATGTC | 540 |
| CTTCACAGCA | GACTGAGCCA | GTGCCCAGAG | GTTCACCCTT | TGCCTACACC | TGTCCTGCTG | 600 |
| CCTGCTGTGG | ACTTTAGCTT | GGGAGAATGG | AAAACCCAGA | TGGAGGAGAC | CAAGGCACAG | 660 |
| GACATTCTGG | GAGCAGTGAC | CCTTCTGCTG | GAGGGAGTGA | TGGCAGCACG | GGGACAACTG | 720 |
| GGACCCACTT | GCCTCTCATC | CCTCCTGGGG | CAGCTTTCTG | GACAGGTCCG | TCTCCTCCTT | 780 |
| GGGGCCCTGC | AGAGCCTCCT | TGGAACCCAG | CTTCCTCCAC | AGGGCAGGAC | CACAGCTCAC | 840 |
| AAGGATCCCA | ATGCCATCTT | CCTGAGCTTC | CAACACCTGC | TCCGAGGAAA | GGTGCGTTTC | 900 |
| CTGATGCTTG | TAGGAGGGTC | CACCCTCTGC | GTCAGG | | | 936 |

(2) INFORMATION FOR SEQ ID NO:82:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 939 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:82:

| TCCCCAGCT | C CACCTGCTTG | TGACCTCCGA | GTCCTCAGTA | AACTGCTTCG | TGACTCCCAT | 60 |
|-----------|--------------|------------|------------|------------|------------|-----|
| GTCCTTCAC | A GCAGACTGAG | CCAGTGCCCA | GAGGTTCACC | CTTTGCCTAC | ACCTGTCCTG | 120 |
| CTGCCTGCT | G TGGACTTTAG | CTTGGGAGAA | TGGAAAACCC | AGATGGAGGA | GACCAAGGCA | 180 |
| CAGGACATT | C TGGGAGCAGT | GACCCTTCTG | CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | 240 |
| CTGGGACCC | A CTTGCCTCTC | ATCCCTCCTG | GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | 300 |
| CTTGGGGCC | C TGCAGAGCCT | CCTTGGAACC | CAGCTTCCTC | CACAGGGCAG | GACCACAGCT | 360 |
| CACAAGGAT | C CCAATGCCAT | CTTCCTGAGC | TTCCAACACC | TGCTCCGAGG | AAAGGTGCGT | 420 |
| TTCCTGATG | C TTGTAGGAGG | GTCCACCCTC | TGCGTCAGGG | AATTCGGCGG | CAACATGGCG | 480 |
| TCTCCCGCT | C CGCCTGCTTG | TGACCTCCGA | GTCCTCAGTA | AACTGCTTCG | TGACTCCCAT | 540 |
| GTCCTTCAC | A GCAGACTGAG | CCAGTGCCCA | GAGGTTCACC | CTTTGCCTAC | ACCTGTCCTG | 600 |
| CTGCCTGCT | G TGGACTTTAG | CTTGGGAGAA | TGGAAAACCC | AGATGGAGGA | GACCAAGGCA | 660 |
| CAGGACATT | C TGGGAGCAGT | GACCCTTCTG | CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | 720 |
| CTGGGACCC | A CTTGCCTCTC | ATCCCTCCTG | GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | 780 |
| CTTGGGGCC | C TGCAGAGCCT | CCTTGGAACC | CAGCTTCCTC | CACAGGGCAG | GACCACAGCT | 840 |
| CACAAGGAT | C CCAATGCCAT | CTTCCTGAGC | TTCCAACACC | TGCTCCGAGG | AAAGGTGCGT | 900 |
| TTCCTGATG | C TTGTAGGAGG | GTCCACCCTC | TGCGTCAGG | | | 939 |

(2) INFORMATION FOR SEQ ID NO:83:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 948 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:83:

| TCCCCAGCGC | CGCCTGCTTG | TGACCTCCGA | GTCCTCAGTA | AACTGCTTCG | TGACTCCCAT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GTCCTTCACA | GCAGACTGAG | CCAGTGCCCA | GAGGTTCACC | CTTTGCCTAC | ACCTGTCCTG | 120 |
| CTGCCTGCTG | TGGACTTTAG | CTTGGGAGAA | TGGAAAACCC | AGATGGAGGA | GACCAAGGCA | 180 |
| CAGGACATTC | TGGGAGCAGT | GACCCTTCTG | CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | 240 |
| CTGGGACCCA | CTTGCCTCTC | ATCCCTCCTG | GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | 300 |
| CTTGGGGCCC | TGCAGAGCCT | CCTTGGAACC | CAGCTTCCTC | CACAGGGCAG | GACCACAGCT | 360 |
| CACAAGGATC | CCAATGCCAT | CTTCCTGAGC | TTCCAACACC | TGCTCCGAGG | AAAGGTGCGT | 420 |
| TTCCTGATGC | TTGTAGGAGG | GTCCACCCTC | TGCGTCAGGG | AATTCGGCGG | CAACGGCGGC | 480 |
| AACATGGCGT | CCCCAGCGCC | GCCTGCTTGT | GACCTCCGAG | TCCTCAGTAA | ACTGCTTCGT | 540 |
| GACTCCCATG | TCCTTCACAG | CAGACTGAGC | CAGTGCCCAG | AGGTTCACCC | TTTGCCTACA | 600 |
| CCTGTCCTGC | TGCCTGCTGT | GGACTTTAGC | TTGGGAGAAT | GGAAAACCCA | GATGGAGGAG | 660 |
| ACCAAGGCAC | AGGACATTCT | GGGAGCAGTG | ACCCTTCTGC | TGGAGGGAGT | GATGGCAGCA | 720 |
| CGGGGACAAC | TGGGACCCAC | TTGCCTCTCA | TCCCTCCTGG | GGCAGCTTTC | TGGACAGGTC | 780 |
| CGTCTCCTCC | TTGGGGCCCT | GCAGAGCCTC | CTTGGAACCC | AGCTTCCTCC | ACAGGGCAGG | 840 |
| ACCACAGCTC | ACAAGGATCC | CAATGCCATC | TTCCTGAGCT | TCCAACACCT | GCTCCGAGGA | 900 |
| AAGGTGCGTT | TCCTGATGCT | TGTAGGAGGG | TCCACCCTCT | GCGTCAGG | | 948 |

(2) INFORMATION FOR SEQ ID NO:84:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 688 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:84:

| CATGGCTAAC | TGCTCTATAA | TGATCGATGA | AATTATACAT | CACTTAAAGA | GACCACCTGC | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| ACCTTTGCTG | GACCCGAACA | ACCTCAATGA | CGAAGACGTC | TCTATCCTGA | TGGACCGAAA | 120 |
| CCTTCGACTT | CCAAACCTGG | AGAGCTTCGT | AAGGGCTGTC | AAGAACTTAG | AAAATGCATC | 180 |
| AGGTATTGAG | GCAATTCTTC | GTAATCTCCA | ACCATGTCTG | CCCTCTGCCA | CGGCCGCACC | 240 |

| CTCTCGACAT | CCAATCATCA | TCAAGGCAGG | TGACTGGCAA | GAATTCCGGG | AAAAACTGAC | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| GTTCTATCTG | GTTACCCTTG | AGCAAGCGCA | GGAACAACAG | GGTGGTGGCT | CTAACTGCTC | 360 |
| TATAATGATC | GATGAAATTA | TACATCACTT | AAAGAGACCA | CCTGCACCTT | TGCTGGACCC | 420 |
| GAACAACCTC | AATGACGAAG | ACGTCTCTAT | CCTGATGGAC | CGAAACCTTC | GACTTCCAAA | 480 |
| CCTGGAGAGC | TTCGTAAGGG | CTGTCAAGAA | CTTAGAAAAT | GCATCAGGTA | TTGAGGCAAT | 540 |
| TCTTCGTAAT | CTCCAACCAT | GTCTGCCCTC | TGCCACGGCC | GCACCCTCTC | GACATCCAAT | 600 |
| CATCATCAAG | GCAGGTGACT | GGCAAGAATT | CCGGGAAAAA | CTGACGTTCT | ATCTGGTTAC | 660 |
| CCTTGAGCAA | GCGCAGGAAC | AACAGTAC | | | | 688 |

(2) INFORMATION FOR SEQ ID NO:85:

(2) INFORMATION FOR SEQ ID NO:86:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 712 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "SYNTHETIC"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:85:

| CATGGCTAAC | TGCTCTATAA | TGATCGATGA | AATTATACAT | CACTTAAAGA | GACCACCTGC | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| ACCTTTGCTG | GACCCGAACA | ACCTCAATGA | CGAAGACGTC | TCTATCCTGA | TGGACCGAAA | 120 |
| CCTTCGACTT | CCAAACCTGG | AGAGCTTCGT | AAGGGCTGTC | AAGAACTTAG | AAAATGCATC | 180 |
| AGGTATTGAG | GCAATTCTTC | GTAATCTCCA | ACCATGTCTG | CCCTCTGCCA | CGGCCGCACC | 240 |
| CTCTCGACAT | CCAATCATCA | TCAAGGCAGG | TGACTGGCAA | GAATTCCGGG | AAAAACTGAC | 300 |
| GTTCTATCTG | GTTACCCTTG | AGCAAGCGCA | GGAACAACAG | GGTGGTGGCT | CTGGCGGTGG | 360 |
| CAGCGGCGGC | GGTTCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | 420 |
| ACCACCTGCA | CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | 480 |
| GGACCGAAAC | CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | 540 |
| AAATGCATCA | GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | 600 |
| GGCCGCACCC | TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | 660 |
| AAAACTGACG | TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | AC | 712 |

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:86:

| ATGGCTCTGG ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| CTTCGACTTC CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 120 |
| GGTATTGAGG CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 180 |
| TCTCGACATC CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 240 |
| TTCTATCTGG TTACCCTTGA | GCAAGCGCAG | GAACAACAGG | GTGGTGGCTC | TAACTGCTCT | 300 |
| ATAATGATCG ATGAAATTAT | ACATCACTTA | AAGAGACCAC | CTGCACCTTT | GTACGTAGAG | 360 |
| GGCGGTGGAG GCTCCCCGGG | TGAACCGTCT | GGTCCAATCT | CTACTATCAA | CCCGTCTCCT | 420 |
| CCGTCTAAAG AATCTCATAA | ATCTCCAAAC | ATGGCTACCC | AGGGTGCCAT | GCCGGCCTTC | 480 |
| GCCTCTGCTT TCCAGCGCCG | GGCAGGAGGG | GTCCTGGTTG | CTAGCCATCT | GCAGAGCTTC | 540 |
| CTGGAGGTGT CGTACCGCGT | TCTACGCCAC | CTTGCGCAGC | CCTCTGGCGG | CTCTGGCGGC | 600 |
| TCTCAGAGCT TCCTGCTCAA | GTCTTTAGAG | CAAGTGAGAA | AGATCCAGGG | CGATGGCGCA | 660 |
| GCGCTCCAGG AGAAGCTGTG | TGCCACCTAC | AAGCTGTGCC | ACCCCGAGGA | GCTGGTGCTG | 720 |
| CTCGGACACT CTCTGGGCAT | CCCCTGGGCT | CCCCTGAGCT | CCTGCCCCAG | CCAGGCCCTG | 780 |
| CAGCTGGCAG GCTGCTTGAG | CCAACTCCAT | AGCGGCCTTT | TCCTCTACCA | GGGGCTCCTG | 840 |
| CAGGCCCTGG AAGGGATATC | CCCCGAGTTG | GGTCCCACCT | TGGACACACT | GCAGCTGGAC | 900 |
| GTCGCCGACT TTGCCACCAC | CATCTGGCAG | CAGATGGAAG | AACTGGGAAT | GGCCCCTGCC | 960 |
| CTGCAGCCCT AATAA | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:87:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:87:

| ATGGCTCT | GG ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 60 |
|----------|---------------|------------|------------|------------|------------|-----|
| CTTCGACT | TC CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 120 |
| GGTATTGA | GG CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 180 |
| TCTCGACA | TC CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 240 |
| TTCTATCT | GG TTACCCTTGA | GCAAGCGCAG | GAACAACAGG | GTGGTGGCTC | TAACTGCTCT | 300 |
| ATAATGAT | CG ATGAAATTAT | ACATCACTTA | AAGAGACCAC | CTGCACCTTT | GTACGTAGAG | 360 |
| GGCGGTGG | AG GCTCCCCGGG | TGAACCGTCT | GGTCCAATCT | CTACTATCAA | CCCGTCTCCT | 420 |
| CCGTCTAA | AG AATCTCATAA | ATCTCCAAAC | ATGGCTACCC | AGGGTGCCAT | GCCGGCCTTC | 480 |
| GCCTCTGC | IT TCCAGCGCCG | GGCAGGAGGG | GTCCTGGTTG | CTAGCCATCT | GCAGAGCTTC | 540 |
| CTGGAGGT | GT CGTACCGCGT | TCTACGCCAC | CTTGCGCAGC | CCTCTGGCGG | CTCTGGCGGC | 600 |
| TCTCAGAG | CT TCCTGCTCAA | GTCTTTAGAG | CAAGTGAGAA | AGATCCAGGG | CGATGGCGCA | 660 |
| GCGCTCCA | GG AGAAGCTGTG | TGCCACCTAC | AAGCTGTGCC | ACCCCGAGGA | GCTGGTGCTG | 720 |
| CTCGGACA | CT CTCTGGGCAT | CCCCTGGGCT | CCCCTGAGCT | CCTGCCCCAG | CCAGGCCCTG | 780 |
| CAGCTGGC | AG GCTGCTTGAG | CCAACTCCAT | AGCGGCCTTT | TCCTCTACCA | GGGGCTCCTG | 840 |
| CAGGCCCT | GG AAGGGATATC | CCCCGAGTTG | GGTCCCACCT | TGGACACACT | GCAGCTGGAC | 900 |
| GTCGCCGA | CT TTGCCACCAC | CATCTGGCAG | CAGATGGAAG | AACTGGGAAT | GGCCCCTGCC | 960 |
| CTGCAGCC | CT AATAA | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:88:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

- (A) DESCRIPTION: /desc = "DNA (synthetic)"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:88:

| ATGGCTGCAC | CCTCTCGACA | TCCAATCATC | ATCAAGGCAG | GTGACTGGCA | AGAATTCCGG | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GAAAAACTGA | CGTTCTATCT | GGTTACCCTT | GAGCAAGCGC | AGGAACAACA | GGGTGGTGGC | 120 |
| TCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 180 |
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 240 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 300 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CTACGTAGAG | 360 |
| GGCGGTGGAG | GCTCCCCGGG | TGAACCGTCT | GGTCCAATCT | CTACTATCAA | CCCGTCTCCT | 420 |
| CCGTCTAAAG | AATCTCATAA | ATCTCCAAAC | ATGGCTACCC | AGGGTGCCAT | GCCGGCCTTC | 480 |
| GCCTCTGCTT | TCCAGCGCCG | GGCAGGAGGG | GTCCTGGTTG | CTAGCCATCT | GCAGAGCTTC | 540 |
| CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | CTTGCGCAGC | CCTCTGGCGG | CTCTGGCGGC | 600 |
| TCTCAGAGCT | TCCTGCTCAA | GTCTTTAGAG | CAAGTGAGAA | AGATCCAGGG | CGATGGCGCA | 660 |
| GCGCTCCAGG | AGAAGCTGTG | TGCCACCTAC | AAGCTGTGCC | ACCCCGAGGA | GCTGGTGCTG | 720 |
| CTCGGACACT | CTCTGGGCAT | CCCCTGGGCT | CCCCTGAGCT | CCTGCCCCAG | CCAGGCCCTG | 780 |
| CAGCTGGCAG | GCTGCTTGAG | CCAACTCCAT | AGCGGCCTTT | TCCTCTACCA | GGGGCTCCTG | 840 |
| CAGGCCCTGG | AAGGGATATC | CCCCGAGTTG | GGTCCCACCT | TGGACACACT | GCAGCTGGAC | 900 |
| GTCGCCGACT | TTGCCACCAC | CATCTGGCAG | CAGATGGAAG | AACTGGGAAT | GGCCCCTGCC | 960 |
| CTGCAGCCCT | AATAA | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:89:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:89:

| ATGGCTGCAG | GTGACTGGCA | AGAATTCCGG | GAAAAACTGA | CGTTCTATCT | GGTTACCCTT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GAGCAAGCGC | AGGAACAACA | GGGTGGTGGC | TCTAACTGCT | CTATAATGAT | CGATGAAATT | 120 |
| ATACATCACT | TAAAGAGACC | ACCTGCACCT | TTGCTGGACC | CGAACAACCT | CAATGACGAA | 180 |

| GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | 240 |
|------------|------------|------------|------------|------------|------------|-----|
| GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | 300 |
| TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | CGACATCCAA | TCATCATCAA | GTACGTAGAG | 360 |
| GGCGGTGGAG | GCTCCCCGGG | TGAACCGTCT | GGTCCAATCT | CTACTATCAA | CCCGTCTCCT | 420 |
| CCGTCTAAAG | AATCTCATAA | ATCTCCAAAC | ATGGCTACCC | AGGGTGCCAT | GCCGGCCTTC | 480 |
| GCCTCTGCTT | TCCAGCGCCG | GGCAGGAGGG | GTCCTGGTTG | CTAGCCATCT | GCAGAGCTTC | 540 |
| CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | CTTGCGCAGC | CCTCTGGCGG | CTCTGGCGGC | 600 |
| TCTCAGAGCT | TCCTGCTCAA | GTCTTTAGAG | CAAGTGAGAA | AGATCCAGGG | CGATGGCGCA | 660 |
| GCGCTCCAGG | AGAAGCTGTG | TGCCACCTAC | AAGCTGTGCC | ACCCCGAGGA | GCTGGTGCTG | 720 |
| CTCGGACACT | CTCTGGGCAT | CCCCTGGGCT | CCCCTGAGCT | CCTGCCCCAG | CCAGGCCCTG | 780 |
| CAGCTGGCAG | GCTGCTTGAG | CCAACTCCAT | AGCGGCCTTT | TCCTCTACCA | GGGGCTCCTG | 840 |
| CAGGCCCTGG | AAGGGATATC | CCCCGAGTTG | GGTCCCACCT | TGGACACACT | GCAGCTGGAC | 900 |
| GTCGCCGACT | TTGCCACCAC | CATCTGGCAG | CAGATGGAAG | AACTGGGAAT | GGCCCCTGCC | 960 |
| CTGCAGCCCT | AATAA | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:90:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 999 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:90:

| GGACCGAAAC 60 | CTATCCTGAT | GAAGACGTCT | CCTCAATGAC | ACCCGAACAA | ATGGCTCTGG |
|----------------|------------|------------|------------|------------|------------|
| AAATGCATCA 120 | AGAACTTAGA | AGGGCTGTCA | GAGCTTCGTA | CAAACCTGGA | CTTCGACTTC |
| GGCCGCACCC 180 | CCTCTGCCAC | CCATGTCTGC | TAATCTCCAA | CAATTCTTCG | GGTATTGAGG |
| AAAACTGACG 240 | AATTCCGGGA | GACTGGCAAG | CAAGGCAGGT | CAATCATCAT | TCTCGACATC |
| TGGCGGTGGC 300 | GTGGTGGCTC | GAACAACAGG | GCAAGCGCAG | TTACCCTTGA | TTCTATCTGG |
| CTTAAAGAGA 360 | TTATACATCA | ATCGATGAAA | CTCTATAATG | GTTCTAACTG | AGCGGCGGCG |
| GTCTGGTCCA 420 | CGGGTGAACC | GGAGGCTCCC | AGAGGGCGGT | CTTTGTACGT | CCACCTGCAC |

| ATCTCTACTA | TCAACCCGTC | TCCTCCGTCT | AAAGAATCTC | ATAAATCTCC | AAACATGGCT | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | 540 |
| GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | 600 |
| CAGCCCTCTG | GCGGCTCTGG | CGGCTCTCAG | AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | 660 |
| AGAAAGATCC | AGGGCGATGG | CGCAGCGCTC | CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | 720 |
| TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | CACTCTCTGG | GCATCCCCTG | GGCTCCCCTG | 780 |
| AGCTCCTGCC | CCAGCCAGGC | CCTGCAGCTG | GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | 840 |
| CTTTTCCTCT | ACCAGGGGCT | CCTGCAGGCC | CTGGAAGGGA | TATCCCCGA | GTTGGGTCCC | 900 |
| ACCTTGGACA | CACTGCAGCT | GGACGTCGCC | GACTTTGCCA | CCACCATCTG | GCAGCAGATG | 960 |
| GAAGAACTGG | GAATGGCCCC | TGCCCTGCAG | CCCTAATAA | | | 999 |

(2) INFORMATION FOR SEQ ID NO:91:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 999 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:91:

| ATGGCTAATG | CATCAGGTAT | TGAGGCAATT | CTTCGTAATC | TCCAACCATG | TCTGCCCTCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GCCACGGCCG | CACCCTCTCG | ACATCCAATC | ATCATCAAGG | CAGGTGACTG | GCAAGAATTC | 120 |
| CGGGAAAAAC | TGACGTTCTA | TCTGGTTACC | CTTGAGCAAG | CGCAGGAACA | ACAGGGTGGT | 180 |
| GGCTCTGGCG | GTGGCAGCGG | CGGCGGTTCT | AACTGCTCTA | TAATGATCGA | TGAAATTATA | 240 |
| CATCACTTAA | AGAGACCACC | TGCACCTTTG | CTGGACCCGA | ACAACCTCAA | TGACGAAGAC | 300 |
| GTCTCTATCC | TGATGGACCG | AAACCTTCGA | CTTCCAAACC | TGGAGAGCTT | CGTAAGGGCT | 360 |
| GTCAAGAACT | TAGAATACGT | AGAGGGCGGT | GGAGGCTCCC | CGGGTGAACC | GTCTGGTCCA | 420 |
| ATCTCTACTA | TCAACCCGTC | TCCTCCGTCT | AAAGAATCTC | ATAAATCTCC | AAACATGGCT | 480 |
| ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | 540 |
| GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | 600 |

| CAGCCCTCTG | GCGGCTCTGG | CGGCTCTCAG | AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | 660 |
|------------|------------|------------|------------|------------|------------|-----|
| AGAAAGATCC | AGGGCGATGG | CGCAGCGCTC | CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | 720 |
| TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | CACTCTCTGG | GCATCCCCTG | GGCTCCCCTG | 780 |
| AGCTCCTGCC | CCAGCCAGGC | CCTGCAGCTG | GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | 840 |
| CTTTTCCTCT | ACCAGGGGCT | CCTGCAGGCC | CTGGAAGGGA | TATCCCCGA | GTTGGGTCCC | 900 |
| ACCTTGGACA | CACTGCAGCT | GGACGTCGCC | GACTTTGCCA | CCACCATCTG | GCAGCAGATG | 960 |
| GAAGAACTGG | GAATGGCCCC | TGCCCTGCAG | CCCTAATAA | | | 999 |

(2) INFORMATION FOR SEQ ID NO:92:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 999 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:92:

| ATGGCTGCAC | CCTCTCGACA | TCCAATCATC | ATCAAGGCAG | GTGACTGGCA | AGAATTCCGG | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GAAAAACTGA | CGTTCTATCT | GGTTACCCTT | GAGCAAGCGC | AGGAACAACA | GGGTGGTGGC | 120 |
| TCTGGCGGTG | GCAGCGGCGG | CGGTTCTAAC | TGCTCTATAA | TGATCGATGA | AATTATACAT | 180 |
| CACTTAAAGA | GACCACCTGC | ACCTTTGCTG | GACCCGAACA | ACCTCAATGA | CGAAGACGTC | 240 |
| TCTATCCTGA | TGGACCGAAA | CCTTCGACTT | CCAAACCTGG | AGAGCTTCGT | AAGGGCTGTC | 300 |
| AAGAACTTAG | AAAATGCATC | AGGTATTGAG | GCAATTCTTC | GTAATCTCCA | ACCATGTCTG | 360 |
| CCCTCTGCCA | CGGCCTACGT | AGAGGGCGGT | GGAGGCTCCC | CGGGTGAACC | GTCTGGTCCA | 420 |
| ATCTCTACTA | TCAACCCGTC | TCCTCCGTCT | AAAGAATCTC | ATAAATCTCC | AAACATGGCT | 480 |
| | | | | | | |
| ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | 540 |
| GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | 600 |
| CAGCCCTCTG | GCGGCTCTGG | CGGCTCTCAG | AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | 660 |
| AGAAAGATCC | AGGGCGATGG | CGCAGCGCTC | CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | 720 |
| TGCCACCCG | AGGAGCTGGT | GCTGCTCGGA | CACTCTCTGG | GCATCCCCTG | GGCTCCCCTG | 780 |

| AGCTCCTGCC | CCAGCCAGGC | CCTGCAGCTG | GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | 840 |
|------------|------------|------------|------------|------------|------------|-----|
| CTTTTCCTCT | ACCAGGGGCT | CCTGCAGGCC | CTGGAAGGGA | TATCCCCGA | GTTGGGTCCC | 900 |
| ACCTTGGACA | CACTGCAGCT | GGACGTCGCC | GACTTTGCCA | CCACCATCTG | GCAGCAGATG | 960 |
| GAAGAACTGG | GAATGGCCCC | TGCCCTGCAG | CCCTAATAA | | | 999 |

(2) INFORMATION FOR SEQ ID NO:93:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 999 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:93:

| ATGGCTGCAG | GTGACTGGCA | AGAATTCCGG | GAAAAACTGA | CGTTCTATCT | GGTTACCCTT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GAGCAAGCGC | AGGAACAACA | GGGTGGTGGC | TCTGGCGGTG | GCAGCGGCGG | CGGTTCTAAC | 120 |
| | TGATCGATGA | | | | | 180 |
| IGCICIAIAA | IGAICGAIGA | AATTATACAT | CACTTAAAGA | GACCACCIGC | ACCITIGCIG | 100 |
| GACCCGAACA | ACCTCAATGA | CGAAGACGTC | TCTATCCTGA | TGGACCGAAA | CCTTCGACTT | 240 |
| CCAAACCTGG | AGAGCTTCGT | AAGGGCTGTC | AAGAACTTAG | AAAATGCATC | AGGTATTGAG | 300 |
| GCAATTCTTC | GTAATCTCCA | ACCATGTCTG | CCCTCTGCCA | CGGCCGCACC | CTCTCGACAT | 360 |
| CCAATCATCA | TCAAGTACGT | AGAGGGCGGT | GGAGGCTCCC | CGGGTGAACC | GTCTGGTCCA | 420 |
| ATCTCTACTA | TCAACCCGTC | TCCTCCGTCT | AAAGAATCTC | ATAAATCTCC | AAACATGGCT | 480 |
| ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | 540 |
| GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | 600 |
| CAGCCCTCTG | GCGGCTCTGG | CGGCTCTCAG | AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | 660 |
| AGAAAGATCC | AGGGCGATGG | CGCAGCGCTC | CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | 720 |
| TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | CACTCTCTGG | GCATCCCCTG | GGCTCCCCTG | 780 |
| AGCTCCTGCC | CCAGCCAGGC | CCTGCAGCTG | GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | 840 |
| CTTTTCCTCT | ACCAGGGGCT | CCTGCAGGCC | CTGGAAGGGA | TATCCCCGA | GTTGGGTCCC | 900 |
| ACCTTGGACA | CACTGCAGCT | GGACGTCGCC | GACTTTGCCA | CCACCATCTG | GCAGCAGATG | 960 |

(2) INFORMATION FOR SEQ ID NO:94:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:94:

| ATGGCTAACT GCTC | CTATAAT GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|-----------------|--------------------|------------|------------|------------|-----|
| CCTTTGCTGG ACCC | CGAACAA CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC CAAA | ACCTGGA GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG CAAT | TTCTTCG TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC CAAT | CATCAT CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG TTAC | CCCTTGA GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG GTGG | GTTCTGG CGGCGGCTCC | AACATGGCTT | ACAAGCTGTG | CCACCCGAG | 420 |
| GAGCTGGTGC TGCT | CCGGACA CTCTCTGGGC | ATCCCCTGGG | CTCCCCTGAG | CTCCTGCCCC | 480 |
| AGCCAGGCCC TGCA | AGCTGGC AGGCTGCTTG | AGCCAACTCC | ATAGCGGCCT | TTTCCTCTAC | 540 |
| CAGGGGCTCC TGCA | AGGCCCT GGAAGGGATA | TCCCCCGAGT | TGGGTCCCAC | CTTGGACACA | 600 |
| CTGCAGCTGG ACGT | CGCCGA CTTTGCCACC | ACCATCTGGC | AGCAGATGGA | AGAACTGGGA | 660 |
| ATGGCCCCTG CCCT | GCAGCC CACCCAGGGT | GCCATGCCGG | CCTTCGCCTC | TGCTTTCCAG | 720 |
| CGCCGGGCAG GAGG | GGTCCT GGTTGCTAGC | CATCTGCAGA | GCTTCCTGGA | GGTGTCGTAC | 780 |
| CGCGTTCTAC GCCA | ACCTTGC GCAGCCCTCT | GGCGGCTCTG | GCGGCTCTCA | GAGCTTCCTG | 840 |
| CTCAAGTCTT TAGA | AGCAAGT GAGAAAGATC | CAGGGCGATG | GCGCAGCGCT | CCAGGAGAAG | 900 |
| CTGTGTGCCA CCTA | AATAA | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:95:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 963 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:95:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTTACAAG | CTGTGCCACC | CCGAGGAGCT | GGTGCTGCTC | 480 |
| GGACACTCTC | TGGGCATCCC | CTGGGCTCCC | CTGAGCTCCT | GCCCCAGCCA | GGCCCTGCAG | 540 |
| CTGGCAGGCT | GCTTGAGCCA | ACTCCATAGC | GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | 600 |
| GCCCTGGAAG | GGATATCCCC | CGAGTTGGGT | CCCACCTTGG | ACACACTGCA | GCTGGACGTC | 660 |
| GCCGACTTTG | CCACCACCAT | CTGGCAGCAG | ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | 720 |
| CAGCCCACCC | AGGGTGCCAT | GCCGGCCTTC | GCCTCTGCTT | TCCAGCGCCG | GGCAGGAGGG | 780 |
| GTCCTGGTTG | CTAGCCATCT | GCAGAGCTTC | CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | 840 |
| CTTGCGCAGC | CCTCTGGCGG | CTCTGGCGGC | TCTCAGAGCT | TCCTGCTCAA | GTCTTTAGAG | 900 |
| CAAGTGAGAA | AGATCCAGGG | CGATGGCGCA | GCGCTCCAGG | AGAAGCTGTG | TGCCACCTAA | 960 |
| TAA | | | | | | 963 |

(2) INFORMATION FOR SEQ ID NO:96:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:96:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | GTGGTTCTGG | CGGCGGCTCC | AACATGGCTC | CCGAGTTGGG | TCCCACCTTG | 420 |
| GACACACTGC | AGCTGGACGT | CGCCGACTTT | GCCACCACCA | TCTGGCAGCA | GATGGAAGAA | 480 |
| CTGGGAATGG | CCCCTGCCCT | GCAGCCCACC | CAGGGTGCCA | TGCCGGCCTT | CGCCTCTGCT | 540 |
| TTCCAGCGCC | GGGCAGGAGG | GGTCCTGGTT | GCTAGCCATC | TGCAGAGCTT | CCTGGAGGTG | 600 |
| TCGTACCGCG | TTCTACGCCA | CCTTGCGCAG | CCCTCTGGCG | GCTCTGGCGG | CTCTCAGAGC | 660 |
| TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGA | AAGATCCAGG | GCGATGGCGC | AGCGCTCCAG | 720 |
| GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | CACCCGAGG | AGCTGGTGCT | GCTCGGACAC | 780 |
| TCTCTGGGCA | TCCCCTGGGC | TCCCCTGAGC | TCCTGCCCCA | GCCAGGCCCT | GCAGCTGGCA | 840 |
| GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | TTCCTCTACC | AGGGGCTCCT | GCAGGCCCTG | 900 |
| GAAGGGATAT | CCTAATAA | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:97:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 963 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:97:

ATGGCTAACT GCTCTATAAT GATCGATGAA ATTATACATC ACTTAAAGAG ACCACCTGCA 60

CCTTTGCTGG ACCCGAACAA CCTCAATGAC GAAGACGTCT CTATCCTGAT GGACCGAAAC 120

CTTCGACTTC CAAACCTGGA GAGCTTCGTA AGGGCTGTCA AGAACTTAGA AAATGCATCA 180

| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
|------------|------------|------------|------------|------------|------------|-----|
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTCCCGAG | TTGGGTCCCA | CCTTGGACAC | ACTGCAGCTG | 480 |
| GACGTCGCCG | ACTTTGCCAC | CACCATCTGG | CAGCAGATGG | AAGAACTGGG | AATGGCCCCT | 540 |
| GCCCTGCAGC | CCACCCAGGG | TGCCATGCCG | GCCTTCGCCT | CTGCTTTCCA | GCGCCGGGCA | 600 |
| GGAGGGGTCC | TGGTTGCTAG | CCATCTGCAG | AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | 660 |
| CGCCACCTTG | CGCAGCCCTC | TGGCGGCTCT | GGCGGCTCTC | AGAGCTTCCT | GCTCAAGTCT | 720 |
| TTAGAGCAAG | TGAGAAAGAT | CCAGGGCGAT | GGCGCAGCGC | TCCAGGAGAA | GCTGTGTGCC | 780 |
| ACCTACAAGC | TGTGCCACCC | CGAGGAGCTG | GTGCTGCTCG | GACACTCTCT | GGGCATCCCC | 840 |
| TGGGCTCCCC | TGAGCTCCTG | CCCCAGCCAG | GCCCTGCAGC | TGGCAGGCTG | CTTGAGCCAA | 900 |
| CTCCATAGCG | GCCTTTTCCT | CTACCAGGGG | CTCCTGCAGG | CCCTGGAAGG | GATATCCTAA | 960 |
| TAA | | | | | | 963 |

(2) INFORMATION FOR SEQ ID NO:98:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:98:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | GTGGTTCTGG | CGGCGGCTCC | AACATGGCTA | TGGCCCCTGC | CCTGCAGCCC | 420 |

| ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | 540 |
| CAGCCCTCTG | GCGGCTCTGG | CGGCTCTCAG | AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | 600 |
| AGAAAGATCC | AGGGCGATGG | CGCAGCGCTC | CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | 660 |
| TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | CACTCTCTGG | GCATCCCCTG | GGCTCCCCTG | 720 |
| AGCTCCTGCC | CCAGCCAGGC | CCTGCAGCTG | GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | 780 |
| CTTTTCCTCT | ACCAGGGGCT | CCTGCAGGCC | CTGGAAGGGA | TATCCCCGA | GTTGGGTCCC | 840 |
| ACCTTGGACA | CACTGCAGCT | GGACGTCGCC | GACTTTGCCA | CCACCATCTG | GCAGCAGATG | 900 |
| GAAGAACTGG | GATAATAA | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:99:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 963 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:99:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTATGGCC | CCTGCCCTGC | AGCCCACCCA | GGGTGCCATG | 480 |
| CCGGCCTTCG | CCTCTGCTTT | CCAGCGCCGG | GCAGGAGGGG | TCCTGGTTGC | TAGCCATCTG | 540 |
| CAGAGCTTCC | TGGAGGTGTC | GTACCGCGTT | CTACGCCACC | TTGCGCAGCC | CTCTGGCGGC | 600 |
| TCTGGCGGCT | CTCAGAGCTT | CCTGCTCAAG | TCTTTAGAGC | AAGTGAGAAA | GATCCAGGGC | 660 |

| G | ATGGCGCAG | CGCTCCAGGA | GAAGCTGTGT | GCCACCTACA | AGCTGTGCCA | CCCCGAGGAG | 720 |
|---|-----------|------------|------------|------------|------------|------------|-----|
| C | TGGTGCTGC | TCGGACACTC | TCTGGGCATC | CCCTGGGCTC | CCCTGAGCTC | CTGCCCCAGC | 780 |
| C | AGGCCCTGC | AGCTGGCAGG | CTGCTTGAGC | CAACTCCATA | GCGGCCTTTT | CCTCTACCAG | 840 |
| G | GGCTCCTGC | AGGCCCTGGA | AGGGATATCC | CCCGAGTTGG | GTCCCACCTT | GGACACACTG | 900 |
| C | AGCTGGACG | TCGCCGACTT | TGCCACCACC | ATCTGGCAGC | AGATGGAAGA | ACTGGGATAA | 960 |
| Τ | AA | | | | | | 963 |

(2) INFORMATION FOR SEQ ID NO:100:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:100:

| ATGGCTAACT GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|-----------------------|------------|------------|------------|------------|------|
| CCTTTGCTGG ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360, |
| TCCCCGGGTG GTGGTTCTGG | CGGCGGCTCC | AACATGGCTA | CCCAGGGTGC | CATGCCGGCC | 420 |
| TTCGCCTCTG CTTTCCAGCG | CCGGGCAGGA | GGGGTCCTGG | TTGCTAGCCA | TCTGCAGAGC | 480 |
| TTCCTGGAGG TGTCGTACCG | CGTTCTACGC | CACCTTGCGC | AGCCCTCTGG | CGGCTCTGGC | 540 |
| GGCTCTCAGA GCTTCCTGCT | CAAGTCTTTA | GAGCAAGTGA | GAAAGATCCA | GGGCGATGGC | 600 |
| GCAGCGCTCC AGGAGAAGCT | GTGTGCCACC | TACAAGCTGT | GCCACCCGA | GGAGCTGGTG | 660 |
| CTGCTCGGAC ACTCTCTGGG | CATCCCCTGG | GCTCCCCTGA | GCTCCTGCCC | CAGCCAGGCC | 720 |
| CTGCAGCTGG CAGGCTGCTT | GAGCCAACTC | CATAGCGGCC | TTTTCCTCTA | CCAGGGGCTC | 780 |
| CTGCAGGCCC TGGAAGGGAT | ATCCCCCGAG | TTGGGTCCCA | CCTTGGACAC | ACTGCAGCTG | 840 |
| GACGTCGCCG ACTTTGCCAC | CACCATCTGG | CAGCAGATGG | AAGAACTGGG | AATGGCCCCT | 900 |

GCCCTGCAGC CCTAATAA 918

(2) INFORMATION FOR SEQ ID NO:101:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 963 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:101:

| ATGGCTAACT GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT CTCCAAACAT | GGCTACCCAG | GGTGCCATGC | CGGCCTTCGC | CTCTGCTTTC | 480 |
| CAGCGCCGGG CAGGAGGGGT | CCTGGTTGCT | AGCCATCTGC | AGAGCTTCCT | GGAGGTGTCG | 540 |
| TACCGCGTTC TACGCCACCT | TGCGCAGCCC | TCTGGCGGCT | CTGGCGGCTC | TCAGAGCTTC | 600 |
| CTGCTCAAGT CTTTAGAGCA | AGTGAGAAAG | ATCCAGGGCG | ATGGCGCAGC | GCTCCAGGAG | 660 |
| AAGCTGTGTG CCACCTACAA | GCTGTGCCAC | CCCGAGGAGC | TGGTGCTGCT | CGGACACTCT | 720 |
| CTGGGCATCC CCTGGGCTCC | CCTGAGCTCC | TGCCCCAGCC | AGGCCCTGCA | GCTGGCAGGC | 780 |
| TGCTTGAGCC AACTCCATAG | CGGCCTTTTC | CTCTACCAGG | GGCTCCTGCA | GGCCCTGGAA | 840 |
| GGGATATCCC CCGAGTTGGG | TCCCACCTTG | GACACACTGC | AGCTGGACGT | CGCCGACTTT | 900 |
| GCCACCACCA TCTGGCAGCA | GATGGAAGAA | CTGGGAATGG | CCCCTGCCCT | GCAGCCCTAA | 960 |
| TAA | | | | | 963 |

(2) INFORMATION FOR SEQ ID NO:102:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 918 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:102:

| ATGGCTA | ACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|---------|-----|------------|------------|------------|------------|------------|-----|
| CCTTTGC | TGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGAC | TTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTG | AGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGAC | ATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATC | TGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGG | GTG | GTGGTTCTGG | CGGCGGCTCC | AACATGGCTT | CTGCTTTCCA | GCGCCGGGCA | 420 |
| GGAGGGG | TCC | TGGTTGCTAG | CCATCTGCAG | AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | 480 |
| CGCCACC | TTG | CGCAGCCCTC | TGGCGGCTCT | GGCGGCTCTC | AGAGCTTCCT | GCTCAAGTCT | 540 |
| TTAGAGC | AAG | TGAGAAAGAT | CCAGGGCGAT | GGCGCAGCGC | TCCAGGAGAA | GCTGTGTGCC | 600 |
| ACCTACA | AGC | TGTGCCACCC | CGAGGAGCTG | GTGCTGCTCG | GACACTCTCT | GGGCATCCCC | 660 |
| TGGGCTC | CCC | TGAGCTCCTG | CCCCAGCCAG | GCCCTGCAGC | TGGCAGGCTG | CTTGAGCCAA | 720 |
| CTCCATA | GCG | GCCTTTTCCT | CTACCAGGGG | CTCCTGCAGG | CCCTGGAAGG | GATATCCCCC | 780 |
| GAGTTGG | GTC | CCACCTTGGA | CACACTGCAG | CTGGACGTCG | CCGACTTTGC | CACCACCATC | 840 |
| TGGCAGC | AGA | TGGAAGAACT | GGGAATGGCC | CCTGCCCTGC | AGCCCACCCA | GGGTGCCATG | 900 |
| CCGGCCT | TCG | CCTAATAA | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:103:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 963 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "SYNTHETIC"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:103:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTTCTGCT | TTCCAGCGCC | GGGCAGGAGG | GGTCCTGGTT | 480 |
| GCTAGCCATC | TGCAGAGCTT | CCTGGAGGTG | TCGTACCGCG | TTCTACGCCA | CCTTGCGCAG | 540 |
| CCCTCTGGCG | GCTCTGGCGG | CTCTCAGAGC | TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGA | 600 |
| AAGATCCAGG | GCGATGGCGC | AGCGCTCCAG | GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | 660 |
| CACCCGAGG | AGCTGGTGCT | GCTCGGACAC | TCTCTGGGCA | TCCCCTGGGC | TCCCCTGAGC | 720 |
| TCCTGCCCCA | GCCAGGCCCT | GCAGCTGGCA | GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | 780 |
| TTCCTCTACC | AGGGGCTCCT | GCAGGCCCTG | GAAGGGATAT | CCCCGAGTT | GGGTCCCACC | 840 |
| TTGGACACAC | TGCAGCTGGA | CGTCGCCGAC | TTTGCCACCA | CCATCTGGCA | GCAGATGGAA | 900 |
| GAACTGGGAA | TGGCCCCTGC | CCTGCAGCCC | ACCCAGGGTG | CCATGCCGGC | CTTCGCCTAA | 960 |
| TAA | | | | | | 963 |

(2) INFORMATION FOR SEQ ID NO:104:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:104:

| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
|------------|------------|------------|------------|------------|------------|-----|
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | GTGGTTCTGG | CGGCGGCTCC | AACATGGCTT | ACAAGCTGTG | CCACCCGAG | 420 |
| GAGCTGGTGC | TGCTCGGACA | CTCTCTGGGC | ATCCCCTGGG | CTCCCCTGAG | CTCCTGCCCC | 480 |
| AGCCAGGCCC | TGCAGCTGGC | AGGCTGCTTG | AGCCAACTCC | ATAGCGGCCT | TTTCCTCTAC | 540 |
| CAGGGGCTCC | TGCAGGCCCT | GGAAGGGATA | TCCCCGAGT | TGGGTCCCAC | CTTGGACACA | 600 |
| CTGCAGCTGG | ACGTCGCCGA | CTTTGCCACC | ACCATCTGGC | AGCAGATGGA | AGAACTGGGA | 660 |
| ATGGCCCCTG | CCCTGCAGCC | CACCCAGGGT | GCCATGCCGG | CCTTCGCCTC | TGCTTTCCAG | 720 |
| CGCCGGGCAG | GAGGGGTCCT | GGTTGCTAGC | CATCTGCAGA | GCTTCCTGGA | GGTGTCGTAC | 780 |
| CGCGTTCTAC | GCCACCTTGC | GCAGCCCACA | CCATTGGGCC | CTGCCAGCTC | CCTGCCCCAG | 840 |
| AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | AGAAAGATCC | AGGGCGATGG | CGCAGCGCTC | 900 |
| CAGGAGAAGC | TGTGTGCCAC | CTAATAA | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:105:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 972 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:105:

| 60 | ACCACCTGCA | ACTTAAAGAG | ATTATACATC | GATCGATGAA | GCTCTATAAT | ATGGCTAACT |
|-----|------------|------------|------------|------------|------------|------------|
| 120 | GGACCGAAAC | CTATCCTGAT | GAAGACGTCT | CCTCAATGAC | ACCCGAACAA | CCTTTGCTGG |
| 180 | AAATGCATCA | AGAACTTAGA | AGGGCTGTCA | GAGCTTCGTA | CAAACCTGGA | CTTCGACTTC |
| 240 | GGCCGCACCC | CCTCTGCCAC | CCATGTCTGC | TAATCTCCAA | CAATTCTTCG | GGTATTGAGG |
| 300 | AAAACTGACG | AATTCCGGGA | GACTGGCAAG | CAAGGCAGGT | CAATCATCAT | TCTCGACATC |
| 360 | CGGTGGAGGC | ACGTAGAGGG | GAACAACAGT | GCAAGCGCAG | TTACCCTTGA | TTCTATCTGG |

| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| TCTCATAAAT | CTCCAAACAT | GGCTTACAAG | CTGTGCCACC | CCGAGGAGCT | GGTGCTGCTC | 480 |
| GGACACTCTC | TGGGCATCCC | CTGGGCTCCC | CTGAGCTCCT | GCCCCAGCCA | GGCCCTGCAG | 540 |
| CTGGCAGGCT | GCTTGAGCCA | ACTCCATAGC | GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | 600 |
| GCCCTGGAAG | GGATATCCCC | CGAGTTGGGT | CCCACCTTGG | ACACACTGCA | GCTGGACGTC | 660 |
| GCCGACTTTG | CCACCACCAT | CTGGCAGCAG | ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | 720 |
| CAGCCCACCC | AGGGTGCCAT | GCCGGCCTTC | GCCTCTGCTT | TCCAGCGCCG | GGCAGGAGGG | 780 |
| GTCCTGGTTG | CTAGCCATCT | GCAGAGCTTC | CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | 840 |
| CTTGCGCAGC | CCACACCATT | GGGCCCTGCC | AGCTCCCTGC | CCCAGAGCTT | CCTGCTCAAG | 900 |
| TCTTTAGAGC | AAGTGAGAAA | GATCCAGGGC | GATGGCGCAG | CGCTCCAGGA | GAAGCTGTGT | 960 |
| GCCACCTAAT | AA | | | | | 972 |

(2) INFORMATION FOR SEQ ID NO:106:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:106:

| I | ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|---|------------|------------|------------|------------|------------|------------|-----|
| (| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| (| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| (| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| 7 | TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| 7 | TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| 7 | CCCCGGGTG | GTGGTTCTGG | CGGCGGCTCC | AACATGGCTC | CCGAGTTGGG | TCCCACCTTG | 420 |
| C | SACACACTGC | AGCTGGACGT | CGCCGACTTT | GCCACCACCA | TCTGGCAGCA | GATGGAAGAA | 480 |
| | CTGGGAATGG | CCCCTGCCCT | GCAGCCCACC | CAGGGTGCCA | TGCCGGCCTT | CGCCTCTGCT | 540 |

| TTCCAGCGCC | GGGCAGGAGG | GGTCCTGGTT | GCTAGCCATC | TGCAGAGCTT | CCTGGAGGTG | 600 |
|------------|------------|------------|------------|------------|------------|-----|
| TCGTACCGCG | TTCTACGCCA | CCTTGCGCAG | CCCACACCAT | TGGGCCCTGC | CAGCTCCCTG | 660 |
| CCCCAGAGCT | TCCTGCTCAA | GTCTTTAGAG | CAAGTGAGAA | AGATCCAGGG | CGATGGCGCA | 720 |
| GCGCTCCAGG | AGAAGCTGTG | TGCCACCTAC | AAGCTGTGCC | ACCCCGAGGA | GCTGGTGCTG | 780 |
| CTCGGACACT | CTCTGGGCAT | CCCCTGGGCT | CCCCTGAGCT | CCTGCCCCAG | CCAGGCCCTG | 840 |
| CAGCTGGCAG | GCTGCTTGAG | CCAACTCCAT | AGCGGCCTTT | TCCTCTACCA | GGGGCTCCTG | 900 |
| CAGGCCCTGG | AAGGGATATC | CTAATAA | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:107:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 972 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:107:

| ATGGCTAACT GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT CTCCAAACAT | GGCTCCCGAG | TTGGGTCCCA | CCTTGGACAC | ACTGCAGCTG | 480 |
| GACGTCGCCG ACTTTGCCAC | CACCATCTGG | CAGCAGATGG | AAGAACTGGG | AATGGCCCCT | 540 |
| GCCCTGCAGC CCACCCAGGG | TGCCATGCCG | GCCTTCGCCT | CTGCTTTCCA | GCGCCGGGCA | 600 |
| GGAGGGGTCC TGGTTGCTAG | CCATCTGCAG | AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | 660 |
| CGCCACCTTG CGCAGCCCAC | ACCATTGGGC | CCTGCCAGCT | CCCTGCCCCA | GAGCTTCCTG | 720 |
| CTCAAGTCTT TAGAGCAAGT | GAGAAAGATC | CAGGGCGATG | GCGCAGCGCT | CCAGGAGAAG | 780 |

| CTGTGTGCCA | CCTACAAGCT | GTGCCACCCC | GAGGAGCTGG | TGCTGCTCGG | ACACTCTCTG | 840 |
|------------|------------|------------|------------|------------|------------|-----|
| GGCATCCCCT | GGGCTCCCCT | GAGCTCCTGC | CCCAGCCAGG | CCCTGCAGCT | GGCAGGCTGC | 900 |
| TTGAGCCAAC | TCCATAGCGG | CCTTTTCCTC | TACCAGGGGC | TCCTGCAGGC | CCTGGAAGGG | 960 |
| ATATCCTAAT | AA | | | | | 972 |

(2) INFORMATION FOR SEQ ID NO:108:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:108:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | GTGGTTCTGG | CGGCGGCTCC | AACATGGCTA | TGGCCCCTGC | CCTGCAGCCC | 420 |
| ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | 480 |
| GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | 540 |
| CAGCCCACAC | CATTGGGCCC | TGCCAGCTCC | CTGCCCCAGA | GCTTCCTGCT | CAAGTCTTTA | 600 |
| GAGCAAGTGA | GAAAGATCCA | GGGCGATGGC | GCAGCGCTCC | AGGAGAAGCT | GTGTGCCACC | 660 |
| TACAAGCTGT | GCCACCCCGA | GGAGCTGGTG | CTGCTCGGAC | ACTCTCTGGG | CATCCCCTGG | 720 |
| GCTCCCCTGA | GCTCCTGCCC | CAGCCAGGCC | CTGCAGCTGG | CAGGCTGCTT | GAGCCAACTC | 780 |
| CATAGCGGCC | TTTTCCTCTA | CCAGGGGCTC | CTGCAGGCCC | TGGAAGGGAT | ATCCCCGAG | 840 |
| TTGGGTCCCA | CCTTGGACAC | ACTGCAGCTG | GACGTCGCCG | ACTTTGCCAC | CACCATCTGG | 900 |
| CAGCAGATGG | AAGAACTGGG | ATAATAA | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:109:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 972 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "DNA (synthetic)"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:109:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTATGGCC | CCTGCCCTGC | AGCCCACCCA | GGGTGCCATG | 480 |
| CCGGCCTTCG | CCTCTGCTTT | CCAGCGCCGG | GCAGGAGGGG | TCCTGGTTGC | TAGCCATCTG | 540 |
| CAGAGCTTCC | TGGAGGTGTC | GTACCGCGTT | CTACGCCACC | TTGCGCAGCC | CACACCATTG | 600 |
| GGCCCTGCCA | GCTCCCTGCC | CCAGAGCTTC | CTGCTCAAGT | CTTTAGAGCA | AGTGAGAAAG | 660 |
| ATCCAGGGCG | ATGGCGCAGC | GCTCCAGGAG | AAGCTGTGTG | CCACCTACAA | GCTGTGCCAC | 720 |
| CCCGAGGAGC | TGGTGCTGCT | CGGACACTCT | CTGGGCATCC | CCTGGGCTCC | CCTGAGCTCC | 780 |
| TGCCCCAGCC | AGGCCCTGCA | GCTGGCAGGC | TGCTTGAGCC | AACTCCATAG | CGGCCTTTTC | 840 |
| CTCTACCAGG | GGCTCCTGCA | GGCCCTGGAA | GGGATATCCC | CCGAGTTGGG | TCCCACCTTG | 900 |
| GACACACTGC | AGCTGGACGT | CGCCGACTTT | GCCACCACCA | TCTGGCAGCA | GATGGAAGAA | 960 |
| CTGGGATAAT | AA | | | | | 972 |

(2) INFORMATION FOR SEQ ID NO:110:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:110:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | GTGGTTCTGG | CGGCGGCTCC | AACATGGCTA | CCCAGGGTGC | CATGCCGGCC | 420 |
| TTCGCCTCTG | CTTTCCAGCG | CCGGGCAGGA | GGGGTCCTGG | TTGCTAGCCA | TCTGCAGAGC | 480 |
| TTCCTGGAGG | TGTCGTACCG | CGTTCTACGC | CACCTTGCGC | AGCCCACACC | ATTGGGCCCT | 540 |
| GCCAGCTCCC | TGCCCCAGAG | CTTCCTGCTC | AAGTCTTTAG | AGCAAGTGAG | AAAGATCCAG | 600 |
| GGCGATGGCG | CAGCGCTCCA | GGAGAAGCTG | TGTGCCACCT | ACAAGCTGTG | CCACCCGAG | 660 |
| GAGCTGGTGC | TGCTCGGACA | CTCTCTGGGC | ATCCCCTGGG | CTCCCCTGAG | CTCCTGCCCC | 720 |
| AGCCAGGCCC | TGCAGCTGGC | AGGCTGCTTG | AGCCAACTCC | ATAGCGGCCT | TTTCCTCTAC | 780 |
| CAGGGGCTCC | TGCAGGCCCT | GGAAGGGATA | TCCCCGAGT | TGGGTCCCAC | CTTGGACACA | 840 |
| CTGCAGCTGG | ACGTCGCCGA | CTTTGCCACC | ACCATCTGGC | AGCAGATGGA | AGAACTGGGA | 900 |
| ATGGCCCCTG | CCCTGCAGCC | СТААТАА | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:111:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 972 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:111:

| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
|------------|------------|------------|------------|------------|------------|-----|
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTACCCAG | GGTGCCATGC | CGGCCTTCGC | CTCTGCTTTC | 480 |
| CAGCGCCGGG | CAGGAGGGGT | CCTGGTTGCT | AGCCATCTGC | AGAGCTTCCT | GGAGGTGTCG | 540 |
| TACCGCGTTC | TACGCCACCT | TGCGCAGCCC | ACACCATTGG | GCCCTGCCAG | CTCCCTGCCC | 600 |
| CAGAGCTTCC | TGCTCAAGTC | TTTAGAGCAA | GTGAGAAAGA | TCCAGGGCGA | TGGCGCAGCG | 660 |
| CTCCAGGAGA | AGCTGTGTGC | CACCTACAAG | CTGTGCCACC | CCGAGGAGCT | GGTGCTGCTC | 720 |
| GGACACTCTC | TGGGCATCCC | CTGGGCTCCC | CTGAGCTCCT | GCCCCAGCCA | GGCCCTGCAG | 780 |
| CTGGCAGGCT | GCTTGAGCCA | ACTCCATAGC | GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | 840 |
| GCCCTGGAAG | GGATATCCCC | CGAGTTGGGT | CCCACCTTGG | ACACACTGCA | GCTGGACGTC | 900 |
| GCCGACTTTG | CCACCACCAT | CTGGCAGCAG | ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | 960 |
| CAGCCCTAAT | AA | | | | | 972 |

(2) INFORMATION FOR SEQ ID NO:112:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:112:

| | ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|---|------------|------------|------------|------------|------------|------------|-----|
| , | CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| | CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| | GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |

| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | GTGGTTCTGG | CGGCGGCTCC | AACATGGCTT | CTGCTTTCCA | GCGCCGGGCA | 420 |
| GGAGGGGTCC | TGGTTGCTAG | CCATCTGCAG | AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | 480 |
| CGCCACCTTG | CGCAGCCCAC | ACCATTGGGC | CCTGCCAGCT | CCCTGCCCCA | GAGCTTCCTG | 540 |
| CTCAAGTCTT | TAGAGCAAGT | GAGAAAGATC | CAGGGCGATG | GCGCAGCGCT | CCAGGAGAAG | 600 |
| CTGTGTGCCA | CCTACAAGCT | GTGCCACCCC | GAGGAGCTGG | TGCTGCTCGG | ACACTCTCTG | 660 |
| GGCATCCCCT | GGGCTCCCCT | GAGCTCCTGC | CCCAGCCAGG | CCCTGCAGCT | GGCAGGCTGC | 720 |
| TTGAGCCAAC | TCCATAGCGG | CCTTTTCCTC | TACCAGGGGC | TCCTGCAGGC | CCTGGAAGGG | 780 |
| ATATCCCCCG | AGTTGGGTCC | CACCTTGGAC | ACACTGCAGC | TGGACGTCGC | CGACTTTGCC | 840 |
| ACCACCATCT | GGCAGCAGAT | GGAAGAACTG | GGAATGGCCC | CTGCCCTGCA | GCCCACCCAG | 900 |
| GGTGCCATGC | CGGCCTTCGC | CTAATAA | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:113:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 972 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:113:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGACCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTTCTGCT | TTCCAGCGCC | GGGCAGGAGG | GGTCCTGGTT | 480 |
| GCTAGCCATC | TGCAGAGCTT | CCTGGAGGTG | TCGTACCGCG | TTCTACGCCA | CCTTGCGCAG | 540 |

| CCCACACCAT | TGGGCCCTGC | CAGCTCCCTG | CCCCAGAGCT | TCCTGCTCAA | GTCTTTAGAG | 600 |
|------------|------------|------------|------------|------------|------------|-----|
| CAAGTGAGAA | AGATCCAGGG | CGATGGCGCA | GCGCTCCAGG | AGAAGCTGTG | TGCCACCTAC | 660 |
| AAGCTGTGCC | ACCCCGAGGA | GCTGGTGCTG | CTCGGACACT | CTCTGGGCAT | CCCCTGGGCT | 720 |
| CCCCTGAGCT | CCTGCCCCAG | CCAGGCCCTG | CAGCTGGCAG | GCTGCTTGAG | CCAACTCCAT | 780 |
| AGCGGCCTTT | TCCTCTACCA | GGGGCTCCTG | CAGGCCCTGG | AAGGGATATC | CCCCGAGTTG | 840 |
| GGTCCCACCT | TGGACACACT | GCAGCTGGAC | GTCGCCGACT | TTGCCACCAC | CATCTGGCAG | 900 |
| CAGATGGAAG | AACTGGGAAT | GGCCCCTGCC | CTGCAGCCCA | CCCAGGGTGC | CATGCCGGCC | 960 |
| TTCGCCTAAT | AA | | | | | 972 |

(2) INFORMATION FOR SEQ ID NO:114:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 963 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:114:

| ATGGCTAACT GCTCTAACAT | GATCGATGAA | ATCATCACCC | ACCTGAAGCA | GCCACCGCTG | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| CCGCTGCTGG ACTTCAACAA | CCTCAATGGT | GAAGACCAAG | ATATCCTAAT | GGACAATAAC | 120 |
| CTTCGTCGTC CAAACCTCGA | GGCATTCAAC | CGTGCTGTCA | AGTCTCTGCA | GAATGCATCA | 180 |
| GCAATTGAGA GCATTCTTAA | AAATCTCCTG | CCATGTCTGC | CGCTAGCCAC | GGCCGCACCC | 240 |
| ACGCGACATC CAATCCATAT | CAAGGACGGT | GACTGGAATG | AATTCCGTCG | TAAACTGACC | 300 |
| TTCTATCTGA AAACCTTGGA | GAACGCGCAG | GCTCAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT CTCCAAACAT | GGCTACCCAG | GGTGCCATGC | CGGCCTTCGC | CTCTGCTTTC | 480 |
| CAGCGCCGGG CAGGAGGGGT | CCTGGTTGCT | AGCCATCTGC | AGAGCTTCCT | GGAGGTGTCG | 540 |
| TACCGCGTTC TACGCCACCT | TGCGCAGCCC | TCTGGCGGCT | CTGGCGGCTC | TCAGAGCTTC | 600 |
| CTGCTCAAGT CTTTAGAGCA | AGTGAGAAAG | ATCCAGGGCG | ATGGCGCAGC | GCTCCAGGAG | 660 |
| AAGCTGTGTG CCACCTACAA | GCTGTGCCAC | CCCGAGGAGC | TGGTGCTGCT | CGGACACTCT | 720 |

| CTGGGCATCC | CCTGGGCTCC | CCTGAGCTCC | TGCCCCAGCC | AGGCCCTGCA | GCTGGCAGGC | 780 |
|------------|------------|------------|------------|------------|------------|-----|
| TGCTTGAGCC | AACTCCATAG | CGGCCTTTTC | CTCTACCAGG | GGCTCCTGCA | GGCCCTGGAA | 840 |
| GGGATATCCC | CCGAGTTGGG | TCCCACCTTG | GACACACTGC | AGCTGGACGT | CGCCGACTTT | 900 |
| GCCACCACCA | TCTGGCAGCA | GATGGAAGAA | CTGGGAATGG | CCCCTGCCCT | GCAGCCCTAA | 960 |
| TAA | | | | | | 963 |

(2) INFORMATION FOR SEQ ID NO:115:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 972 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:115:

| ATGGCTAACT | GCTCTAACAT | GATCGATGAA | ATCATCACCC | ACCTGAAGCA | GCCACCGCTG | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCGCTGCTGG | ACTTCAACAA | CCTCAATGGT | GAAGACCAAG | ATATCCTGAT | GGAAAATAAC | 120 |
| CTTCGTCGTC | CAAACCTCGA | GGCATTCAAC | CGTGCTGTCA | AGTCTCTGCA | GAATGCATCA | 180 |
| GCAATTGAGA | GCATTCTTAA | AAATCTCCTG | CCATGTCTGC | CCCTGGCCAC | GGCCGCACCC | 240 |
| ACGCGACATC | CAATCATCAT | CCGTGACGGT | GACTGGAATG | AATTCCGTCG | TAAACTGACC | 300 |
| TTCTATCTGA | AAACCTTGGA | GAACGCGCAG | GCTCAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTACCCAG | GGTGCCATGC | CGGCCTTCGC | CTCTGCTTTC | 480 |
| CAGCGCCGGG | CAGGAGGGGT | CCTGGTTGCT | AGCCATCTGC | AGAGCTTCCT | GGAGGTGTCG | 540 |
| TACCGCGTTC | TACGCCACCT | TGCGCAGCCC | ACACCATTGG | GCCCTGCCAG | CTCCCTGCCC | 600 |
| CAGAGCTTCC | TGCTCAAGTC | TTTAGAGCAA | GTGAGAAAGA | TCCAGGGCGA | TGGCGCAGCG | 660 |
| CTCCAGGAGA | AGCTGTGTGC | CACCTACAAG | CTGTGCCACC | CCGAGGAGCT | GGTGCTGCTC | 720 |
| GGACACTCTC | TGGGCATCCC | CTGGGCTCCC | CTGAGCTCCT | GCCCCAGCCA | GGCCCTGCAG | 780 |
| CTGGCAGGCT | GCTTGAGCCA | ACTCCATAGC | GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | 840 |
| GCCCTGGAAG | GGATATCCCC | CGAGTTGGGT | CCCACCTTGG | ACACACTGCA | GCTGGACGTC | 900 |
| GCCGACTTTG | CCACCACCAT | CTGGCAGCAG | ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | 960 |

CAGCCCTAAT AA 972

(2) INFORMATION FOR SEQ ID NO:116:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 963 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:116:

| ATGGCTAACT | GCTCTAACAT | GATCGATGAA | ATCATCACCC | ACCTGAAGCA | GCCACCGCTG | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCGCTGCTGG | ACTTCAACAA | CCTCAATGGT | GAAGACCAAG | ATATCCTGAT | GGAAAATAAC | 120 |
| CTTCGTCGTC | CAAACCTCGA | GGCATTCAAC | CGTGCTGTCA | AGTCTCTGCA | GAATGCATCA | 180 |
| GCAATTGAGA | GCATTCTTAA | AAATCTCCTG | CCATGTCTGC | CCCTGGCCAC | GGCCGCACCC | 240 |
| ACGCGACATC | CAATCATCAT | CCGTGACGGT | GACTGGAATG | AATTCCGTCG | TAAACTGACC | 300 |
| TTCTATCTGA | AAACCTTGGA | GAACGCGCAG | GCTCAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTACCCAG | GGTGCCATGC | CGGCCTTCGC | CTCTGCTTTC | 480 |
| CAGCGCCGGG | CAGGAGGGGT | CCTGGTTGCT | AGCCATCTGC | AGAGCTTCCT | GGAGGTGTCG | 540 |
| TACCGCGTTC | TACGCCACCT | TGCGCAGCCC | TCTGGCGGCT | CTGGCGGCTC | TCAGAGCTTC | 600 |
| CTGCTCAAGT | CTTTAGAGCA | AGTGAGAAAG | ATCCAGGGCG | ATGGCGCAGC | GCTCCAGGAG | 660 |
| AAGCTGTGTG | CCACCTACAA | GCTGTGCCAC | CCCGAGGAGC | TGGTGCTGCT | CGGACACTCT | 720 |
| CTGGGCATCC | CCTGGGCTCC | CCTGAGCTCC | TGCCCCAGCC | AGGCCCTGCA | GCTGGCAGGC | 780 |
| TGCTTGAGCC | AACTCCATAG | CGGCCTTTTC | CTCTACCAGG | GGCTCCTGCA | GGCCCTGGAA | 840 |
| GGGATATCCC | CCGAGTTGGG | TCCCACCTTG | GACACACTGC | AGCTGGACGT | CGCCGACTTT | 900 |
| GCCACCACCA | TCTGGCAGCA | GATGGAAGAA | CTGGGAATGG | CCCCTGCCCT | GCAGCCCTAA | 960 |
| TAA | | | | | | 963 |

(2) INFORMATION FOR SEQ ID NO:117:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 972 base pairs

- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:117:

| ATGGCTAACT | GCTCTAACAT | GATCGATGAA | ATCATCACCC | ACCTGAAGCA | GCCACCGCTG | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCGCTGCTGG | ACTTCAACAA | CCTCAATGGT | GAAGACCAAG | ATATCCTAAT | GGACAATAAC | 120 |
| CTTCGTCGTC | CAAACCTCGA | GGCATTCAAC | CGTGCTGTCA | AGTCTCTGCA | GAATGCATCA | 180 |
| GCAATTGAGA | GCATTCTTAA | AAATCTCCTG | CCATGTCTGC | CGCTAGCCAC | GGCCGCACCC | 240 |
| ACGCGACATC | CAATCCATAT | CAAGGACGGT | GACTGGAATG | AATTCCGTCG | TAAACTGACC | 300 |
| TTCTATCTGA | AAACCTTGGA | GAACGCGCAG | GCTCAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTACCCAG | GGTGCCATGC | CGGCCTTCGC | CTCTGCTTTC | 480 |
| CAGCGCCGGG | CAGGAGGGGT | CCTGGTTGCT | AGCCATCTGC | AGAGCTTCCT | GGAGGTGTCG | 540 |
| TACCGCGTTC | TACGCCACCT | TGCGCAGCCC | ACACCATTGG | GCCCTGCCAG | CTCCCTGCCC | 600 |
| CAGAGCTTCC | TGCTCAAGTC | TTTAGAGCAA | GTGAGAAAGA | TCCAGGGCGA | TGGCGCAGCG | 660 |
| CTCCAGGAGA | AGCTGTGTGC | CACCTACAAG | CTGTGCCACC | CCGAGGAGCT | GGTGCTGCTC | 720 |
| GGACACTCTC | TGGGCATCCC | CTGGGCTCCC | CTGAGCTCCT | GCCCCAGCCA | GGCCCTGCAG | 780 |
| CTGGCAGGCT | GCTTGAGCCA | ACTCCATAGC | GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | 840 |
| GCCCTGGAAG | GGATATCCCC | CGAGTTGGGT | CCCACCTTGG | ACACACTGCA | GCTGGACGTC | 900 |
| GCCGACTTTG | CCACCACCAT | CTGGCAGCAG | ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | 960 |
| CAGCCCTAAT | AA | | | | | 972 |

(2) INFORMATION FOR SEQ ID NO:118:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:118:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGA | GGTTCACCCT | TTGCCTACAC | CTGTCCTGCT | GCCTGCTGTG | 480 |
| GACTTTAGCT | TGGGAGAATG | GAAAACCCAG | ATGGAGGAGA | CCAAGGCACA | GGACATTCTG | 540 |
| GGAGCAGTGA | CCCTTCTGCT | GGAGGGAGTG | ATGGCAGCAC | GGGGACAACT | GGGACCCACT | 600 |
| TGCCTCTCAT | CCCTCCTGGG | GCAGCTTTCT | GGACAGGTCC | GTCTCCTCCT | TGGGGCCCTG | 660 |
| CAGAGCCTCC | TTGGAACCCA | GCTTCCTCCA | CAGGGCAGGA | CCACAGCTCA | CAAGGATCCC | 720 |
| AATGCCATCT | TCCTGAGCTT | CCAACACCTG | CTCCGAGGAA | AGGTGCGTTT | CCTGATGCTT | 780 |
| GTAGGAGGGT | CCACCCTCTG | CGTCAGGGAA | TTCGGCGGCA | ACATGGCGTC | TCCCGCTCCG | 840 |
| CCTGCTTGTG | ACCTCCGAGT | CCTCAGTAAA | CTGCTTCGTG | ACTCCCATGT | CCTTCACAGC | 900 |
| AGACTGAGCC | AGTGCCCA | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:119:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:119:

| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
|------------|------------|------------|------------|------------|------------|-----|
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGTT | GCCTACACCT | GTCCTGCTGC | CTGCTGTGGA | CTTTAGCTTG | 480 |
| GGAGAATGGA | AAACCCAGAT | GGAGGAGACC | AAGGCACAGG | ACATTCTGGG | AGCAGTGACC | 540 |
| CTTCTGCTGG | AGGGAGTGAT | GGCAGCACGG | GGACAACTGG | GACCCACTTG | CCTCTCATCC | 600 |
| CTCCTGGGGC | AGCTTTCTGG | ACAGGTCCGT | CTCCTCCTTG | GGGCCCTGCA | GAGCCTCCTT | 660 |
| GGAACCCAGC | TTCCTCCACA | GGGCAGGACC | ACAGCTCACA | AGGATCCCAA | TGCCATCTTC | 720 |
| CTGAGCTTCC | AACACCTGCT | CCGAGGAAAG | GTGCGTTTCC | TGATGCTTGT | AGGAGGGTCC | 780 |
| ACCCTCTGCG | TCAGGGAATT | CGGCGGCAAC | ATGGCGTCTC | CCGCTCCGCC | TGCTTGTGAC | 840 |
| CTCCGAGTCC | TCAGTAAACT | GCTTCGTGAC | TCCCATGTCC | TTCACAGCAG | ACTGAGCCAG | 900 |
| TGCCCAGAGG | TTCACCCT | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:120:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:120:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |

| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| CATAAATCTC | CAAACATGGT | CCTGCTGCCT | GCTGTGGACT | TTAGCTTGGG | AGAATGGAAA | 480 |
| ACCCAGATGG | AGGAGACCAA | GGCACAGGAC | ATTCTGGGAG | CAGTGACCCT | TCTGCTGGAG | 540 |
| GGAGTGATGG | CAGCACGGGG | ACAACTGGGA | CCCACTTGCC | TCTCATCCCT | CCTGGGGCAG | 600 |
| CTTTCTGGAC | AGGTCCGTCT | CCTCCTTGGG | GCCCTGCAGA | GCCTCCTTGG | AACCCAGCTT | 660 |
| CCTCCACAGG | GCAGGACCAC | AGCTCACAAG | GATCCCAATG | CCATCTTCCT | GAGCTTCCAA | 720 |
| CACCTGCTCC | GAGGAAAGGT | GCGTTTCCTG | ATGCTTGTAG | GAGGGTCCAC | CCTCTGCGTC | 780 |
| AGGGAATTCG | GCGGCAACAT | GGCGTCTCCC | GCTCCGCCTG | CTTGTGACCT | CCGAGTCCTC | 840 |
| AGTAAACTGC | TTCGTGACTC | CCATGTCCTT | CACAGCAGAC | TGAGCCAGTG | CCCAGAGGTT | 900 |
| CACCCTTTGC | CTACACCT | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:121:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:121:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGC | TGTGGACTTT | AGCTTGGGAG | AATGGAAAAC | CCAGATGGAG | 480 |
| GAGACCAAGG | CACAGGACAT | TCTGGGAGCA | GTGACCCTTC | TGCTGGAGGG | AGTGATGGCA | 540 |
| GCACGGGGAC | AACTGGGACC | CACTTGCCTC | TCATCCCTCC | TGGGGCAGCT | TTCTGGACAG | 600 |

| GTCCGTCTCC | TCCTTGGGGC | CCTGCAGAGC | CTCCTTGGAA | CCCAGCTTCC | TCCACAGGGC | 660 |
|------------|------------|------------|------------|------------|------------|-----|
| AGGACCACAG | CTCACAAGGA | TCCCAATGCC | ATCTTCCTGA | GCTTCCAACA | CCTGCTCCGA | 720 |
| GGAAAGGTGC | GTTTCCTGAT | GCTTGTAGGA | GGGTCCACCC | TCTGCGTCAG | GGAATTCGGC | 780 |
| GGCAACATGG | CGTCTCCCGC | TCCGCCTGCT | TGTGACCTCC | GAGTCCTCAG | TAAACTGCTT | 840 |
| CGTGACTCCC | ATGTCCTTCA | CAGCAGACTG | AGCCAGTGCC | CAGAGGTTCA | CCCTTTGCCT | 900 |
| ACACCTGTCC | TGCTGCCT | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:122:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:122:

| GCTAACTGCT CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| TTGCTGGACC CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC CAAACATGGA | CTTTAGCTTG | GGAGAATGGA | AAACCCAGAT | GGAGGAGACC | 480 |
| AAGGCACAGG ACATTCTGGG | AGCAGTGACC | CTTCTGCTGG | AGGGAGTGAT | GGCAGCACGG | 540 |
| GGACAACTGG GACCCACTTG | CCTCTCATCC | CTCCTGGGGC | AGCTTTCTGG | ACAGGTCCGT | 600 |
| CTCCTCCTTG GGGCCCTGCA | GAGCCTCCTT | GGAACCCAGC | TTCCTCCACA | GGGCAGGACC | 660 |
| ACAGCTCACA AGGATCCCAA | TGCCATCTTC | CTGAGCTTCC | AACACCTGCT | CCGAGGAAAG | 720 |
| GTGCGTTTCC TGATGCTTGT | AGGAGGGTCC | ACCCTCTGCG | TCAGGGAATT | CGGCGGCAAC | 780 |
| ATGGCGTCTC CCGCTCCGCC | TGCTTGTGAC | CTCCGAGTCC | TCAGTAAACT | GCTTCGTGAC | 840 |
| TCCCATGTCC TTCACAGCAG | ACTGAGCCAG | TGCCCAGAGG | TTCACCCTTT | GCCTACACCT | 900 |

GTCCTGCTGC CTGCTGTG 918

(2) INFORMATION FOR SEQ ID NO:123:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 907 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:123:

| GCTAACTGCT CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| TTGCTGGACC CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCGGTTAC CCTTGAGCAA | GCGCAGGAAC | AACAGTACGT | AGAGGGCGGT | GGAGGCTCCC | 360 |
| CGGGGAACCG TCTGGTCCAA | TCTCTACTAT | CAACCCGTCT | CCTCCGTCTA | AAGAATCTCA | 420 |
| TAAACTCCAA ACATGGGAGA | ATGGAAAACC | CAGATGGAGG | AGACCAAGGC | ACAGGACATT | 480 |
| CTGGAGCAGT GACCCTTCTG | CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | CTGGGACCCA | 540 |
| CTTGCTCTCA TCCCTCCTGG | GGCAGCTTTC | TGGACAGGTC | CGTCTCCTCC | TTGGGGCCCT | 600 |
| GCAGGCCTCC TTGGAACCCA | GCTTCCTCCA | CAGGGCAGGA | CCACAGCTCA | CAAGGATCCC | 660 |
| AATGCATCTT CCTGAGCTTC | CAACACCTGC | TCCGAGGAAA | GGTGCGTTTC | CTGATGCTTG | 720 |
| TAGGGGGTCC ACCCTCTGCG | TCAGGGAATT | CGGCGGCAAC | ATGGCGTCTC | CCGCTCCGCC | 780 |
| TGCTGTGACC TCCGAGTCCT | CAGTAAACTG | CTTCGTGACT | CCCATGTCCT | TCACAGCAGA | 840 |
| CTGACCAGTG CCCAGAGGTT | CACCCTTTGC | CTACACCTGT | CCTGCTGCCT | GCTGTGGACT | 900 |
| TTAGTTG | | | | | 907 |

(2) INFORMATION FOR SEQ ID NO:124:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:124:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGG | ACCCACTTGC | CTCTCATCCC | TCCTGGGGCA | GCTTTCTGGA | 480 |
| CAGGTCCGTC | TCCTCCTTGG | GGCCCTGCAG | AGCCTCCTTG | GAACCCAGCT | TCCTCCACAG | 540 |
| GGCAGGACCA | CAGCTCACAA | GGATCCCAAT | GCCATCTTCC | TGAGCTTCCA | ACACCTGCTC | 600 |
| CGAGGAAAGG | TGCGTTTCCT | GATGCTTGTA | GGAGGGTCCA | CCCTCTGCGT | CAGGGAATTC | 660 |
| GGCGGCAACA | TGGCGTCTCC | CGCTCCGCCT | GCTTGTGACC | TCCGAGTCCT | CAGTAAACTG | 720 |
| CTTCGTGACT | CCCATGTCCT | TCACAGCAGA | CTGAGCCAGT | GCCCAGAGGT | TCACCCTTTG | 780 |
| CCTACACCTG | TCCTGCTGCC | TGCTGTGGAC | TTTAGCTTGG | GAGAATGGAA | AACCCAGATG | 840 |
| GAGGAGACCA | AGGCACAGGA | CATTCTGGGA | GCAGTGACCC | TTCTGCTGGA | GGGAGTGATG | 900 |
| GCAGCACGGG | GACAACTG | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:125:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 848 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:125:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGG | AACCCAGCTT | CCTCCACAGG | GCAGGACCAC | AGCTCACAAG | 480 |
| GATCCCAATG | CCATCTTCCT | GAGCTTCCAA | CACCTGCTCC | GAGGAAAGGT | GCGTTTCCTG | 540 |
| ATGCTTGTAG | GAGGGTCCAC | CCTCTGCGTC | AGGGAATTCG | GCGGCAACAT | GGCGTCTCCC | 600 |
| GCTCCGCCTG | CTTGTGACCT | CCGAGTCCTC | AGTAAACTGC | TTCGTGACTC | CCATGTCCTT | 660 |
| CACAGCAGAC | TGAGCCAGTG | CCCAGAGGTT | CACCCTTTGC | CTACACCTGT | CCTGCTGCCT | 720 |
| GCTGTGGACT | TTAGCTTGGG | AGAATGGAAA | ACCCAGATGG | AGGAGACCAA | GGCACAGGAC | 780 |
| ATTCTGGGAG | CAGTGACCCT | TCTGCTGGAG | GGAGTGATGG | CAGCACGGGG | ACAACTGGGA | 840 |
| CCCACTTG | | | | | | 848 |

(2) INFORMATION FOR SEQ ID NO:126:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:126:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |

| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGG | CAGGACCACA | GCTCACAAGG | ATCCCAATGC | CATCTTCCTG | 480 |
| AGCTTCCAAC | ACCTGCTCCG | AGGAAAGGTG | CGTTTCCTGA | TGCTTGTAGG | AGGGTCCACC | 540 |
| CTCTGCGTCA | GGGAATTCGG | CGGCAACATG | GCGTCTCCCG | CTCCGCCTGC | TTGTGACCTC | 600 |
| CGAGTCCTCA | GTAAACTGCT | TCGTGACTCC | CATGTCCTTC | ACAGCAGACT | GAGCCAGTGC | 660 |
| CCAGAGGTTC | ACCCTTTGCC | TACACCTGTC | CTGCTGCCTG | CTGTGGACTT | TAGCTTGGGA | 720 |
| GAATGGAAAA | CCCAGATGGA | GGAGACCAAG | GCACAGGACA | TTCTGGGAGC | AGTGACCCTT | 780 |
| CTGCTGGAGG | GAGTGATGGC | AGCACGGGGA | CAACTGGGAC | CCACTTGCCT | CTCATCCCTC | 840 |
| CTGGGGCAGC | TTTCTGGACA | GGTCCGTCTC | CTCCTTGGGG | CCCTGCAGAG | CCTCCTTGGA | 900 |
| ACCCAGCTTC | CTCCACAG | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:127:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:127:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGC | TCACAAGGAT | CCCAATGCCA | TCTTCCTGAG | CTTCCAACAC | 480 |
| CTGCTCCGAG | GAAAGGTGCG | TTTCCTGATG | CTTGTAGGAG | GGTCCACCCT | CTGCGTCAGG | 540 |
| GAATTCGGCG | GCAACATGGC | GTCTCCCGCT | CCGCCTGCTT | GTGACCTCCG | AGTCCTCAGT | 600 |

| AAACTGCTTC | GTGACTCCCA | TGTCCTTCAC | AGCAGACTGA | GCCAGTGCCC | AGAGGTTCAC | 660 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCCTA | CACCTGTCCT | GCTGCCTGCT | GTGGACTTTA | GCTTGGGAGA | ATGGAAAACC | 720 |
| CAGATGGAGG | AGACCAAGGC | ACAGGACATT | CTGGGAGCAG | TGACCCTTCT | GCTGGAGGGA | 780 |
| GTGATGGCAG | CACGGGGACA | ACTGGGACCC | ACTTGCCTCT | CATCCCTCCT | GGGGCAGCTT | 840 |
| TCTGGACAGG | TCCGTCTCCT | CCTTGGGGCC | CTGCAGAGCC | TCCTTGGAAC | CCAGCTTCCT | 900 |
| CCACAGGGCA | GGACCACA | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:128:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:128:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGA | TCCCAATGCC | ATCTTCCTGA | GCTTCCAACA | CCTGCTCCGA | 480 |
| GGAAAGGTGC | GTTTCCTGAT | GCTTGTAGGA | GGGTCCACCC | TCTGCGTCAG | GGAATTCGGC | 540 |
| GGCAACATGG | CGTCTCCCGC | TCCGCCTGCT | TGTGACCTCC | GAGTCCTCAG | TAAACTGCTT | 600 |
| CGTGACTCCC | ATGTCCTTCA | CAGCAGACTG | AGCCAGTGCC | CAGAGGTTCA | CCCTTTGCCT | 660 |
| ACACCTGTCC | TGCTGCCTGC | TGTGGACTTT | AGCTTGGGAG | AATGGAAAAC | CCAGATGGAG | 720 |
| GAGACCAAGG | CACAGGACAT | TCTGGGAGCA | GTGACCCTTC | TGCTGGAGGG | AGTGATGGCA | 780 |
| GCACGGGGAC | AACTGGGACC | CACTTGCCTC | TCATCCCTCC | TGGGGCAGCT | TTCTGGACAG | 840 |

| GTCCGTCTCC | TCCTTGGGGC | CCTGCAGAGC | CTCCTTGGAA | CCCAGCTTCC | TCCACAGGGC | 900 |
|------------|------------|------------|------------|------------|------------|-----|
| AGGACCACAG | CTCACAAG | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:129:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 918 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:129:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGC | CATCTTCCTG | AGCTTCCAAC | ACCTGCTCCG | AGGAAAGGTG | 480 |
| CGTTTCCTGA | TGCTTGTAGG | AGGGTCCACC | CTCTGCGTCA | GGGAATTCGG | CGGCAACATG | 540 |
| GCGTCTCCCG | CTCCGCCTGC | TTGTGACCTC | CGAGTCCTCA | GTAAACTGCT | TCGTGACTCC | 600 |
| CATGTCCTTC | ACAGCAGACT | GAGCCAGTGC | CCAGAGGTTC | ACCCTTTGCC | TACACCTGTC | 660 |
| CTGCTGCCTG | CTGTGGACTT | TAGCTTGGGA | GAATGGAAAA | CCCAGATGGA | GGAGACCAAG | 720 |
| GCACAGGACA | TTCTGGGAGC | AGTGACCCTT | CTGCTGGAGG | GAGTGATGGC | AGCACGGGGA | 780 |
| CAACTGGGAC | CCACTTGCCT | CTCATCCCTC | CTGGGGCAGC | TTTCTGGACA | GGTCCGTCTC | 840 |
| CTCCTTGGGG | CCCTGCAGAG | CCTCCTTGGA | ACCCAGCTTC | CTCCACAGGG | CAGGACCACA | 900 |
| GCTCACAAGG | ATCCCAAT | | | | | 918 |

(2) INFORMATION FOR SEQ ID NO:130:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:130:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-------|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | . 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| | | | | | | |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGA | GGTTCACCCT | TTGCCTACAC | CTGTCCTGCT | GCCTGCTGTG | 480 |
| GACTTTAGCT | TGGGAGAATG | GAAAACCCAG | ATGGAGGAGA | CCAAGGCACA | GGACATTCTG | 540 |
| GGAGCAGTGA | CCCTTCTGCT | GGAGGGAGTG | ATGGCAGCAC | GGGGACAACT | GGGACCCACT | 600 |
| TGCCTCTCAT | CCCTCCTGGG | GCAGCTTTCT | GGACAGGTCC | GTCTCCTCCT | TGGGGCCCTG | 660 |
| CAGAGCCTCC | TTGGAACCCA | GCTTCCTCCA | CAGGGCAGGA | CCACAGCTCA | CAAGGATCCC | 720 |
| AATGCCATCT | TCCTGAGCTT | CCAACACCTG | CTCCGAGGAA | AGGTGCGTTT | CCTGATGCTT | 780 |
| GTAGGAGGGT | CCACCCTCTG | CGTCAGGGAA | TTCGGCAACA | TGGCGTCTCC | CGCTCCGCCT | 840 |
| GCTTGTGACC | TCCGAGTCCT | CAGTAAACTG | CTTCGTGACT | CCCATGTCCT | TCACAGCAGA | 900 |
| | | | | | | |
| CTGAGCCAGT | GCCCA | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:131:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:131:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGTT | GCCTACACCT | GTCCTGCTGC | CTGCTGTGGA | CTTTAGCTTG | 480 |
| GGAGAATGGA | AAACCCAGAT | GGAGGAGACC | AAGGCACAGG | ACATTCTGGG | AGCAGTGACC | 540 |
| CTTCTGCTGG | AGGGAGTGAT | GGCAGCACGG | GGACAACTGG | GACCCACTTG | CCTCTCATCC | 600 |
| CTCCTGGGGC | AGCTTTCTGG | ACAGGTCCGT | CTCCTCCTTG | GGGCCCTGCA | GAGCCTCCTT | 660 |
| GGAACCCAGC | TTCCTCCACA | GGGCAGGACC | ACAGCTCACA | AGGATCCCAA | TGCCATCTTC | 720 |
| CTGAGCTTCC | AACACCTGCT | CCGAGGAAAG | GTGCGTTTCC | TGATGCTTGT | AGGAGGGTCC | 780 |
| ACCCTCTGCG | TCAGGGAATT | CGGCAACATG | GCGTCTCCCG | CTCCGCCTGC | TTGTGACCTC | 840 |
| CGAGTCCTCA | GTAAACTGCT | TCGTGACTCC | CATGTCCTTC | ACAGCAGACT | GAGCCAGTGC | 900 |
| CCAGAGGTTC | ACCCT | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:132:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:132:

GCTAACTGCT CTATAATGAT CGATGAAATT ATACATCACT TAAAGAGACC ACCTGCACCT 60

TTGCTGGACC CGAACAACCT CAATGACGAA GACGTCTCTA TCCTGATGGA CCGAAACCTT 120

CGACTTCCAA ACCTGGAGAG CTTCGTAAGG GCTGTCAAGA ACTTAGAAAA TGCATCAGGT 180

| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
|------------|------------|------------|------------|------------|------------|-----|
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGT | CCTGCTGCCT | GCTGTGGACT | TTAGCTTGGG | AGAATGGAAA | 480 |
| ACCCAGATGG | AGGAGACCAA | GGCACAGGAC | ATTCTGGGAG | CAGTGACCCT | TCTGCTGGAG | 540 |
| GGAGTGATGG | CAGCACGGGG | ACAACTGGGA | CCCACTTGCC | TCTCATCCCT | CCTGGGGCAG | 600 |
| CTTTCTGGAC | AGGTCCGTCT | CCTCCTTGGG | GCCCTGCAGA | GCCTCCTTGG | AACCCAGCTT | 660 |
| CCTCCACAGG | GCAGGACCAC | AGCTCACAAG | GATCCCAATG | CCATCTTCCT | GAGCTTCCAA | 720 |
| CACCTGCTCC | GAGGAAAGGT | GCGTTTCCTG | ATGCTTGTAG | GAGGGTCCAC | CCTCTGCGTC | 780 |
| AGGGAATTCG | GCAACATGGC | GTCTCCCGCT | CCGCCTGCTT | GTGACCTCCG | AGTCCTCAGT | 840 |
| AAACTGCTTC | GTGACTCCCA | TGTCCTTCAC | AGCAGACTGA | GCCAGTGCCC | AGAGGTTCAC | 900 |
| CCTTTGCCTA | CACCT | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:133:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:133:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |

| CATAAATCTC | CAAACATGGC | TGTGGACTTT | AGCTTGGGAG | AATGGAAAAC | CCAGATGGAG | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| GAGACCAAGG | CACAGGACAT | TCTGGGAGCA | GTGACCCTTC | TGCTGGAGGG | AGTGATGGCA | 540 |
| GCACGGGGAC | AACTGGGACC | CACTTGCCTC | TCATCCCTCC | TGGGGCAGCT | TTCTGGACAG | 600 |
| GTCCGTCTCC | TCCTTGGGGC | CCTGCAGAGC | CTCCTTGGAA | CCCAGCTTCC | TCCACAGGGC | 660 |
| AGGACCACAG | CTCACAAGGA | TCCCAATGCC | ATCTTCCTGA | GCTTCCAACA | CCTGCTCCGA | 720 |
| GGAAAGGTGC | GTTTCCTGAT | GCTTGTAGGA | GGGTCCACCC | TCTGCGTCAG | GGAATTCGGC | 780 |
| AACATGGCGT | CTCCCGCTCC | GCCTGCTTGT | GACCTCCGAG | TCCTCAGTAA | ACTGCTTCGT | 840 |
| GACTCCCATG | TCCTTCACAG | CAGACTGAGC | CAGTGCCCAG | AGGTTCACCC | TTTGCCTACA | 900 |
| CCTGTCCTGC | TGCCT | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:134:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:134:

| GCTAACTGCT CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| TTGCTGGACC CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA CCCTTGAGCA | AGCGCAGGAA | CÁACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC CAAACATGGA | CTTTAGCTTG | GGAGAATGGA | AAACCCAGAT | GGAGGAGACC | 480 |
| AAGGCACAGG ACATTCTGGG | AGCAGTGACC | CTTCTGCTGG | AGGGAGTGAT | GGCAGCACGG | 540 |
| GGACAACTGG GACCCACTTG | CCTCTCATCC | CTCCTGGGGC | AGCTTTCTGG | ACAGGTCCGT | 600 |
| CTCCTCCTTG GGGCCCTGCA | GAGCCTCCTT | GGAACCCAGC | TTCCTCCACA | GGGCAGGACC | 660 |
| ACAGCTCACA AGGATCCCAA | TGCCATCTTC | CTGAGCTTCC | AACACCTGCT | CCGAGGAAAG | 720 |

| GTGCGTTTCC | TGATGCTTGT | AGGAGGGTCC | ACCCTCTGCG | TCAGGGAATT | CGGCAACATG | 780 |
|------------|------------|------------|------------|------------|------------|-----|
| GCGTCTCCCG | CTCCGCCTGC | TTGTGACCTC | CGAGTCCTCA | GTAAACTGCT | TCGTGACTCC | 840 |
| CATGTCCTTC | ACAGCAGACT | GAGCCAGTGC | CCAGAGGTTC | ACCCTTTGCC | TACACCTGTC | 900 |
| CTGCTGCCTG | CTGTG | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:135:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:135:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGG | AGAATGGAAA | ACCCAGATGG | AGGAGACCAA | GGCACAGGAC | 480 |
| ATTCTGGGAG | CAGTGACCCT | TCTGCTGGAG | GGAGTGATGG | CAGCACGGGG | ACAACTGGGA | 540 |
| CCCACTTGCC | TCTCATCCCT | CCTGGGGCAG | CTTTCTGGAC | AGGTCCGTCT | CCTCCTTGGG | 600 |
| GCCCTGCAGA | GCCTCCTTGG | AACCCAGCTT | CCTCCACAGG | GCAGGACCAC | AGCTCACAAG | 660 |
| GATCCCAATG | CCATCTTCCT | GAGCTTCCAA | CACCTGCTCC | GAGGAAAGGT | GCGTTTCCTG | 720 |
| ATGCTTGTAG | GAGGGTCCAC | CCTCTGCGTC | AGGGAATTCG | GCAACATGGC | GTCTCCCGCT | 780 |
| CCGCCTGCTT | GTGACCTCCG | AGTCCTCAGT | AAACTGCTTC | GTGACTCCCA | TGTCCTTCAC | 840 |
| AGCAGACTGA | GCCAGTGCCC | AGAGGTTCAC | CCTTTGCCTA | CACCTGTCCT | GCTGCCTGCT | 900 |
| GTGGACTTTA | GCTTG | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:136:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:136:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGG | ACCCACTTGC | CTCTCATCCC | TCCTGGGGCA | GCTTTCTGGA | 480 |
| CAGGTCCGTC | TCCTCCTTGG | GGCCCTGCAG | AGCCTCCTTG | GAACCCAGCT | TCCTCCACAG | 540 |
| GGCAGGACCA | CAGCTCACAA | GGATCCCAAT | GCCATCTTCC | TGAGCTTCCA | ACACCTGCTC | 600 |
| CGAGGAAAGG | TGCGTTTCCT | GATGCTTGTA | GGAGGGTCCA | CCCTCTGCGT | CAGGGAATTC | 660 |
| GGCAACATGG | CGTCTCCCGC | TCCGCCTGCT | TGTGACCTCC | GAGTCCTCAG | TAAACTGCTT | 720 |
| CGTGACTCCC | ATGTCCTTCA | CAGCAGACTG | AGCCAGTGCC | CAGAGGTTCA | CCCTTTGCCT | 780 |
| ACACCTGTCC | TGCTGCCTGC | TGTGGACTTT | AGCTTGGGAG | AATGGAAAAC | CCAGATGGAG | 840 |
| GAGACCAAGG | CACAGGACAT | TCTGGGAGCA | GTGACCCTTC | TGCTGGAGGG | AGTGATGGCA | 900 |
| GCACGGGGAC | AACTG | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:137:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:137:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGG | AACCCAGCTT | CCTCCACAGG | GCAGGACCAC | AGCTCACAAG | 480 |
| GATCCCAATG | CCATCTTCCT | GAGCTTCCAA | CACCTGCTCC | GAGGAAAGGT | GCGTTTCCTG | 540 |
| ATGCTTGTAG | GAGGGTCCAC | CCTCTGCGTC | AGGGAATTCG | GCAACATGGC | GTCTCCCGCT | 600 |
| CCGCCTGCTT | GTGACCTCCG | AGTCCTCAGT | AAACTGCTTC | GTGACTCCCA | TGTCCTTCAC | 660 |
| AGCAGACTGA | GCCAGTGCCC | AGAGGTTCAC | CCTTTGCCTA | CACCTGTCCT | GCTGCCTGCT | 720 |
| GTGGACTTTA | GCTTGGGAGA | ATGGAAAACC | CAGATGGAGG | AGACCAAGGC | ACAGGACATT | 780 |
| CTGGGAGCAG | TGACCCTTCT | GCTGGAGGGA | GTGATGGCAG | CACGGGGACA | ACTGGGACCC | 840 |
| ACTTGCCTCT | CATCCCTCCT | GGGGCAGCTT | TCTGGACAGG | TCCGTCTCCT | CCTTGGGGCC | 900 |
| CTGCAGAGCC | TCCTT | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:138:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:138:

| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
|------------|------------|------------|------------|------------|------------|-----|
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGG | CAGGACCACA | GCTCACAAGG | ATCCCAATGC | CATCTTCCTG | 480 |
| AGCTTCCAAC | ACCTGCTCCG | AGGAAAGGTG | CGTTTCCTGA | TGCTTGTAGG | AGGGTCCACC | 540 |
| CTCTGCGTCA | GGGAATTCGG | CAACATGGCG | TCTCCCGCTC | CGCCTGCTTG | TGACCTCCGA | 600 |
| GTCCTCAGTA | AACTGCTTCG | TGACTCCCAT | GTCCTTCACA | GCAGACTGAG | CCAGTGCCCA | 660 |
| GAGGTTCACC | CTTTGCCTAC | ACCTGTCCTG | CTGCCTGCTG | TGGACTTTAG | CTTGGGAGAA | 720 |
| TGGAAAACCC | AGATGGAGGA | GACCAAGGCA | CAGGACATTC | TGGGAGCAGT | GACCCTTCTG | 780 |
| CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | CTGGGACCCA | CTTGCCTCTC | ATCCCTCCTG | 840 |
| GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | CTTGGGGCCC | TGCAGAGCCT | CCTTGGAACC | 900 |
| CAGCTTCCTC | CACAG | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:139:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:139:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |

| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| CATAAATCTC | CAAACATGGC | TCACAAGGAT | CCCAATGCCA | TCTTCCTGAG | CTTCCAACAC | 480 |
| CTGCTCCGAG | GAAAGGTGCG | TTTCCTGATG | CTTGTAGGAG | GGTCCACCCT | CTGCGTCAGG | 540 |
| GAATTCGGCA | ACATGGCGTC | TCCCGCTCCG | CCTGCTTGTG | ACCTCCGAGT | CCTCAGTAAA | 600 |
| CTGCTTCGTG | ACTCCCATGT | CCTTCACAGC | AGACTGAGCC | AGTGCCCAGA | GGTTCACCCT | 660 |
| TTGCCTACAC | CTGTCCTGCT | GCCTGCTGTG | GACTTTAGCT | TGGGAGAATG | GAAAACCCAG | 720 |
| ATGGAGGAGA | CCAAGGCACA | GGACATTCTG | GGAGCAGTGA | CCCTTCTGCT | GGAGGGAGTG | 780 |
| ATGGCAGCAC | GGGGACAACT | GGGACCCACT | TGCCTCTCAT | CCCTCCTGGG | GCAGCTTTCT | 840 |
| GGACAGGTCC | GTCTCCTCCT | TGGGGCCCTG | CAGAGCCTCC | TTGGAACCCA | GCTTCCTCCA | 900 |
| CAGGGCAGGA | CCACA | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:140:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:140:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGA | TCCCAATGCC | ATCTTCCTGA | GCTTCCAACA | CCTGCTCCGA | 480 |
| GGAAAGGTGC | GTTTCCTGAT | GCTTGTAGGA | GGGTCCACCC | TCTGCGTCAG | GGAATTCGGC | 540 |
| AACATGGCGT | CTCCCGCTCC | GCCTGCTTGT | GACCTCCGAG | TCCTCAGTAA | ACTGCTTCGT | 600 |

| GACTCCCATG | TCCTTCACAG | CAGACTGAGC | CAGTGCCCAG | AGGTTCACCC | TTTGCCTACA | 660 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTGTCCTGC | TGCCTGCTGT | GGACTTTAGC | TTGGGAGAAT | GGAAAACCCA | GATGGAGGAG | 720 |
| ACCAAGGCAC | AGGACATTCT | GGGAGCAGTG | ACCCTTCTGC | TGGAGGGAGT | GATGGCAGCA | 780 |
| CGGGGACAAC | TGGGACCCAC | TTGCCTCTCA | TCCCTCCTGG | GGCAGCTTTC | TGGACAGGTC | 840 |
| CGTCTCCTCC | TTGGGGCCCT | GCAGAGCCTC | CTTGGAACCC | AGCTTCCTCC | ACAGGGCAGG | 900 |
| ACCACAGCTC | ACAAG | | | | | 915 |

(2) INFORMATION FOR SEQ ID NO:141:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:141:

| GCTAACTGCT CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| TTGCTGGACC CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC CAAACATGGC | CATCTTCCTG | AGCTTCCAAC | ACCTGCTCCG | AGGAAAGGTG | 480 |
| CGTTTCCTGA TGCTTGTAGG | AGGGTCCACC | CTCTGCGTCA | GGGAATTCGG | CAACATGGCG | 540 |
| TCTCCCGCTC CGCCTGCTTG | TGACCTCCGA | GTCCTCAGTA | AACTGCTTCG | TGACTCCCAT | 600 |
| GTCCTTCACA GCAGACTGAG | CCAGTGCCCA | GAGGTTCACC | CTTTGCCTAC | ACCTGTCCTG | 660 |
| CTGCCTGCTG TGGACTTTAG | CTTGGGAGAA | TGGAAAACCC | AGATGGAGGA | GACCAAGGCA | 720 |
| CAGGACATTC TGGGAGCAGT | GACCCTTCTG | CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | 780 |
| CTGGGACCCA CTTGCCTCTC | ATCCCTCCTG | GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | 840 |
| CTTGGGGCCC TGCAGAGCCT | CCTTGGAACC | CAGCTTCCTC | CACAGGGCAG | GACCACAGCT | 900 |

CACAAGGATC CCAAT 915

(2) INFORMATION FOR SEQ ID NO:142:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 921 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:142:

| GCTA | ACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|-------|--------|------------|------------|------------|------------|------------|-----|
| TTGC' | TGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| GACT' | rccaaa | CCTGGAGAGC | TTCGTAAGGG | CTGTCAAGAA | CTTAGAAAAT | GCATCAGGTA | 180 |
| TGAG | GCAATT | CTTCGTAATC | TCCAACCATG | TCTGCCCTCT | GCCACGGCCG | CACCCTCTCG | 240 |
| CATC | CAATCA | TCATCAAGGC | AGGTGACTGG | CAAGAATTCC | GGGAAAAACT | GACGTTCTAT | 300 |
| TGGT | TACCCT | TGAGCAAGCG | CAGGAACAAC | AGTACGTAGA | GGGCGGTGGA | GGCTCCCCGG | 360 |
| TAAC | CGTCTG | GTCCAATCTC | TACTATCAAC | CCGTCTCCTC | CGTCTAAAGA | ATCTCATAAA | 420 |
| TCTC | CAAACA | TGGAGGTTCA | CCCTTTGCCT | ACACCTGTCC | TGCTGCCTGC | TGTGGACTTT | 480 |
| AGCT | rgggag | AATGGAAAAC | CCAGATGGAG | GAGACCAAGG | CACAGGACAT | TCTGGGAGCA | 540 |
| GTGA | CCCTTC | TGCTGGAGGG | AGTGATGGCA | GCACGGGGAC | AACTGGGACC | CACTTGCCTC | 600 |
| TCAT | CCCTCC | TGGGGCAGCT | TTCTGGACAG | GTCCGTCTCC | TCCTTGGGGC | CCTGCAGAGC | 660 |
| CTCC | rtggaa | CCCAGCTTCC | TCCACAGGGC | AGGACCACAG | CTCACAAGGA | TCCCAATGCC | 720 |
| ATCT | rcctga | GCTTCCAACA | CCTGCTCCGA | GGAAAGGTGC | GTTTCCTGAT | GCTTGTAGGA | 780 |
| GGGT | CCACCC | TCTGCGTCAG | GGAATTCGGC | GGCAACGGCG | GCAACATGGC | GTCCCCAGCG | 840 |
| CCGC | CTGCTT | GTGACCTCCG | AGTCCTCAGT | AAACTGCTTC | GTGACTCCCA | TGTCCTTCAC | 900 |
| AGCA | GACTGA | GCCAGTGCCC | А | | | | 921 |

(2) INFORMATION FOR SEQ ID NO:143:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:143:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGTT | GCCTACACCT | GTCCTGCTGC | CTGCTGTGGA | CTTTAGCTTG | 480 |
| | | | | | | |
| GGAGAATGGA | AAACCCAGAT | GGAGGAGACC | AAGGCACAGG | ACATTCTGGG | AGCAGTGACC | 540 |
| CTTCTGCTGG | AGGGAGTGAT | GGCAGCACGG | GGACAACTGG | GACCCACTTG | CCTCTCATCC | 600 |
| CTCCTGGGGC | AGCTTTCTGG | ACAGGTCCGT | CTCCTCCTTG | GGGCCCTGCA | GAGCCTCCTT | 660 |
| GGAACCCAGC | TTCCTCCACA | GGGCAGGACC | ACAGCTCACA | AGGATCCCAA | TGCCATCTTC | 720 |
| CTGAGCTTCC | AACACCTGCT | CCGAGGAAAG | GTGCGTTTCC | TGATGCTTGT | AGGAGGGTCC | 780 |
| ACCCTCTGCG | TCAGGGAATT | CGGCGGCAAC | GGCGGCAACA | TGGCGTCCCC | AGCGCCGCCT | 840 |
| GCTTGTGACC | TCCGAGTCCT | CAGTAAACTG | CTTCGTGACT | CCCATGTCCT | TCACAGCAGA | 900 |
| CTGAGCCAGT | GCCCAGAGGT | TCACCCT | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:144:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:144:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGT | CCTGCTGCCT | GCTGTGGACT | TTAGCTTGGG | AGAATGGAAA | 480 |
| ACCCAGATGG | AGGAGACCAA | GGCACAGGAC | ATTCTGGGAG | CAGTGACCCT | TCTGCTGGAG | 540 |
| GGAGTGATGG | CAGCACGGGG | ACAACTGGGA | CCCACTTGCC | TCTCATCCCT | CCTGGGGCAG | 600 |
| CTTTCTGGAC | AGGTCCGTCT | CCTCCTTGGG | GCCCTGCAGA | GCCTCCTTGG | AACCCAGCTT | 660 |
| CCTCCACAGG | GCAGGACCAC | AGCTCACAAG | GATCCCAATG | CCATCTTCCT | GAGCTTCCAA | 720 |
| CACCTGCTCC | GAGGAAAGGT | GCGTTTCCTG | ATGCTTGTAG | GAGGGTCCAC | CCTCTGCGTC | 780 |
| AGGGAATTCG | GCGGCAACGG | CGGCAACATG | GCGTCCCCAG | CGCCGCCTGC | TTGTGACCTC | 840 |
| CGAGTCCTCA | GTAAACTGCT | TCGTGACTCC | CATGTCCTTC | ACAGCAGACT | GAGCCAGTGC | 900 |
| CCAGAGGTTC | ACCCTTTGCC | TACACCT | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:145:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:145:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |

| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGC | TGTGGACTTT | AGCTTGGGAG | AATGGAAAAC | CCAGATGGAG | 480 |
| GAGACCAAGG | CACAGGACAT | TCTGGGAGCA | GTGACCCTTC | TGCTGGAGGG | AGTGATGGCA | 540 |
| GCACGGGGAC | AACTGGGACC | CACTTGCCTC | TCATCCCTCC | TGGGGCAGCT | TTCTGGACAG | 600 |
| GTCCGTCTCC | TCCTTGGGGC | CCTGCAGAGC | CTCCTTGGAA | CCCAGCTTCC | TCCACAGGGC | 660 |
| AGGACCACAG | CTCACAAGGA | TCCCAATGCC | ATCTTCCTGA | GCTTCCAACA | CCTGCTCCGA | 720 |
| GGAAAGGTGC | GTTTCCTGAT | GCTTGTAGGA | GGGTCCACCC | TCTGCGTCAG | GGAATTCGGC | 780 |
| GGCAACGGCG | GCAACATGGC | GTCCCCAGCG | CCGCCTGCTT | GTGACCTCCG | AGTCCTCAGT | 840 |
| AAACTGCTTC | GTGACTCCCA | TGTCCTTCAC | AGCAGACTGA | GCCAGTGCCC | AGAGGTTCAC | 900 |
| CCTTTGCCTA | CACCTGTCCT | GCTGCCT | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:146:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:146:

| 60 | ACCTGCACCT | TAAAGAGACC | ATACATCACT | CGATGAAATT | CTATAATGAT | GCTAACTGCT |
|-----|------------|------------|------------|------------|------------|------------|
| 120 | CCGAAACCTT | TCCTGATGGA | GACGTCTCTA | CAATGACGAA | CGAACAACCT | TTGCTGGACC |
| 180 | TGCATCAGGT | ACTTAGAAAA | GCTGTCAAGA | CTTCGTAAGG | ACCTGGAGAG | CGACTTCCAA |
| 240 | CGCACCCTCT | CTGCCACGGC | TGTCTGCCCT | TCTCCAACCA | TTCTTCGTAA | ATTGAGGCAA |
| 300 | ACTGACGTTC | TCCGGGAAAA | TGGCAAGAAT | GGCAGGTGAC | TCATCATCAA | CGACATCCAA |
| 360 | TGGAGGCTCC | TAGAGGGCGG | CAACAGTACG | AGCGCAGGAA | CCCTTGAGCA | TATCTGGTTA |
| 420 | TAAAGAATCT | CTCCTCCGTC | ATCAACCCGT | AATCTCTACT | CGTCTGGTCC | CCGGGTGAAC |
| 480 | GGAGGAGACC | AAACCCAGAT | GGAGAATGGA | CTTTAGCTTG | CAAACATGGA | CATAAATCTC |

| AAGGCACAGG | ACATTCTGGG | AGCAGTGACC | CTTCTGCTGG | AGGGAGTGAT | GGCAGCACGG | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| GGACAACTGG | GACCCACTTG | CCTCTCATCC | CTCCTGGGGC | AGCTTTCTGG | ACAGGTCCGT | 600 |
| CTCCTCCTTG | GGGCCCTGCA | GAGCCTCCTT | GGAACCCAGC | TTCCTCCACA | GGGCAGGACC | 660 |
| ACAGCTCACA | AGGATCCCAA | TGCCATCTTC | CTGAGCTTCC | AACACCTGCT | CCGAGGAAAG | 720 |
| GTGCGTTTCC | TGATGCTTGT | AGGAGGGTCC | ACCCTCTGCG | TCAGGGAATT | CGGCGGCAAC | 780 |
| GGCGGCAACA | TGGCGTCCCC | AGCGCCGCCT | GCTTGTGACC | TCCGAGTCCT | CAGTAAACTG | 840 |
| CTTCGTGACT | CCCATGTCCT | TCACAGCAGA | CTGAGCCAGT | GCCCAGAGGT | TCACCCTTTG | 900 |
| CCTACACCTG | TCCTGCTGCC | TGCTGTG | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:147:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:147:

| (| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|---|------------|------------|------------|------------|------------|------------|-----|
| 7 | TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| (| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| 1 | ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| (| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| 7 | TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| (| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| (| CATAAATCTC | CAAACATGGG | AGAATGGAAA | ACCCAGATGG | AGGAGACCAA | GGCACAGGAC | 480 |
| I | ATTCTGGGAG | CAGTGACCCT | TCTGCTGGAG | GGAGTGATGG | CAGCACGGGG | ACAACTGGGA | 540 |
| (| CCCACTTGCC | TCTCATCCCT | CCTGGGGCAG | CTTTCTGGAC | AGGTCCGTCT | CCTCCTTGGG | 600 |
| C | GCCCTGCAGA | GCCTCCTTGG | AACCCAGCTT | CCTCCACAGG | GCAGGACCAC | AGCTCACAAG | 660 |
| C | GATCCCAATG | CCATCTTCCT | GAGCTTCCAA | CACCTGCTCC | GAGGAAAGGT | GCGTTTCCTG | 720 |
| I | ATGCTTGTAG | GAGGGTCCAC | CCTCTGCGTC | AGGGAATTCG | GCGGCAACGG | CGGCAACATG | 780 |

| GCGTCCCCAG | CGCCGCCTGC | TTGTGACCTC | CGAGTCCTCA | GTAAACTGCT | TCGTGACTCC | 840 |
|------------|------------|------------|------------|------------|------------|-----|
| CATGTCCTTC | ACAGCAGACT | GAGCCAGTGC | CCAGAGGTTC | ACCCTTTGCC | TACACCTGTC | 900 |
| CTGCTGCCTG | CTGTGGACTT | TAGCTTG | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:148:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:148:

| GCTAACTGCT CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|-----------------------|------------|------------|------------|------------|------|
| TTGCTGGACC CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC CAAACATGGG | ACCCACTTGC | CTCTCATCCC | TCCTGGGGCA | GCTTTCTGGA | 480 |
| CAGGTCCGTC TCCTCCTTGG | GGCCCTGCAG | AGCCTCCTTG | GAACCCAGCT | TCCTCCACAG | 540 |
| GGCAGGACCA CAGCTCACAA | GGATCCCAAT | GCCATCTTCC | TGAGCTTCCA | ACACCTGCTC | 600 |
| CGAGGAAAGG TGCGTTTCCT | GATGCTTGTA | GGAGGGTCCA | CCCTCTGCGT | CAGGGAATTC | 660 |
| GGCGGCAACG GCGGCAACAT | GGCGTCCCCA | GCGCCGCCTG | CTTGTGACCT | CCGAGTCCTC | 720 |
| AGTAAACTGC TTCGTGACTC | CCATGTCCTT | CACAGCAGAC | TGAGCCAGTG | CCCAGAGGTT | 780. |
| CACCCTTTGC CTACACCTGT | CCTGCTGCCT | GCTGTGGACT | TTAGCTTGGG | AGAATGGAAA | 840 |
| ACCCAGATGG AGGAGACCAA | GGCACAGGAC | ATTCTGGGAG | CAGTGACCCT | TCTGCTGGAG | 900 |
| GGAGTGATGG CAGCACGGGG | ACAACTG | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:149:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:149:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGG | AACCCAGCTT | CCTCCACAGG | GCAGGACCAC | AGCTCACAAG | 480 |
| GATCCCAATG | CCATCTTCCT | GAGCTTCCAA | CACCTGCTCC | GAGGAAAGGT | GCGTTTCCTG | 540 |
| ATGCTTGTAG | GAGGGTCCAC | CCTCTGCGTC | AGGGAATTCG | GCGGCAACGG | CGGCAACATG | 600 |
| GCGTCCCCAG | CGCCGCCTGC | TTGTGACCTC | CGAGTCCTCA | GTAAACTGCT | TCGTGACTCC | 660 |
| CATGTCCTTC | ACAGCAGACT | GAGCCAGTGC | CCAGAGGTTC | ACCCTTTGCC | TACACCTGTC | 720 |
| CTGCTGCCTG | CTGTGGACTT | TAGCTTGGGA | GAATGGAAAA | CCCAGATGGA | GGAGACCAAG | 780 |
| GCACAGGACA | TTCTGGGAGC | AGTGACCCTT | CTGCTGGAGG | GAGTGATGGC | AGCACGGGGA | 840 |
| CAACTGGGAC | CCACTTGCCT | CTCATCCCTC | CTGGGGCAGC | TTTCTGGACA | GGTCCGTCTC | 900 |
| CTCCTTGGGG | CCCTGCAGAG | CCTCCTT | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:150:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:150:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGG | CAGGACCACA | GCTCACAAGG | ATCCCAATGC | CATCTTCCTG | 480 |
| AGCTTCCAAC | ACCTGCTCCG | AGGAAAGGTG | CGTTTCCTGA | TGCTTGTAGG | AGGGTCCACC | 540 |
| CTCTGCGTCA | GGGAATTCGG | CGGCAACGGC | GGCAACATGG | CGTCCCCAGC | GCCGCCTGCT | 600 |
| TGTGACCTCC | GAGTCCTCAG | TAAACTGCTT | CGTGACTCCC | ATGTCCTTCA | CAGCAGACTG | 660 |
| AGCCAGTGCC | CAGAGGTTCA | CCCTTTGCCT | ACACCTGTCC | TGCTGCCTGC | TGTGGACTTT | 720 |
| AGCTTGGGAG | AATGGAAAAC | CCAGATGGAG | GAGACCAAGG | CACAGGACAT | TCTGGGAGCA | 780 |
| GTGACCCTTC | TGCTGGAGGG | AGTGATGGCA | GCACGGGGAC | AACTGGGACC | CACTTGCCTC | 840 |
| TCATCCCTCC | TGGGGCAGCT | TTCTGGACAG | GTCCGTCTCC | TCCTTGGGGC | CCTGCAGAGC | 900 |
| CTCCTTGGAA | CCCAGCTTCC | TCCACAG | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:151:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:151:

GCTAACTGCT CTATAATGAT CGATGAAATT ATACATCACT TAAAGAGACC ACCTGCACCT 60

TTGCTGGACC CGAACAACCT CAATGACGAA GACGTCTCTA TCCTGATGGA CCGAAACCTT 120

| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
|------------|------------|------------|------------|------------|------------|-----|
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGC | TCACAAGGAT | CCCAATGCCA | TCTTCCTGAG | CTTCCAACAC | 480 |
| CTGCTCCGAG | GAAAGGTGCG | TTTCCTGATG | CTTGTAGGAG | GGTCCACCCT | CTGCGTCAGG | 540 |
| GAATTCGGCG | GCAACGGCGG | CAACATGGCG | TCCCCAGCGC | CGCCTGCTTG | TGACCTCCGA | 600 |
| GTCCTCAGTA | AACTGCTTCG | TGACTCCCAT | GTCCTTCACA | GCAGACTGAG | CCAGTGCCCA | 660 |
| GAGGTTCACC | CTTTGCCTAC | ACCTGTCCTG | CTGCCTGCTG | TGGACTTTAG | CTTGGGAGAA | 720 |
| TGGAAAACCC | AGATGGAGGA | GACCAAGGCA | CAGGACATTC | TGGGAGCAGT | GACCCTTCTG | 780 |
| CTGGAGGGAG | TGATGGCAGC | ACGGGGACAA | CTGGGACCCA | CTTGCCTCTC | ATCCCTCCTG | 840 |
| GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | CTTGGGGCCC | TGCAGAGCCT | CCTTGGAACC | 900 |
| CAGCTTCCTC | CACAGGGCAG | GACCACA | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:152:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:152:

| GCTAACTGCT CTATAATGA | T CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|----------------------|--------------|------------|------------|------------|-----|
| TTGCTGGACC CGAACAACC | T CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA ACCTGGAGA | G CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA TTCTTCGTA | A TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA TCATCATCA | A GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA CCCTTGAGC | A AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC CGTCTGGTC | C AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |

| CATAAATCTC | CAAACATGGA | TCCCAATGCC | ATCTTCCTGA | GCTTCCAACA | CCTGCTCCGA | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| GGAAAGGTGC | GTTTCCTGAT | GCTTGTAGGA | GGGTCCACCC | TCTGCGTCAG | GGAATTCGGC | 540 |
| GGCAACGGCG | GCAACATGGC | GTCCCCAGCG | CCGCCTGCTT | GTGACCTCCG | AGTCCTCAGT | 600 |
| AAACTGCTTC | GTGACTCCCA | TGTCCTTCAC | AGCAGACTGA | GCCAGTGCCC | AGAGGTTCAC | 660 |
| CCTTTGCCTA | CACCTGTCCT | GCTGCCTGCT | GTGGACTTTA | GCTTGGGAGA | ATGGAAAACC | 720 |
| CAGATGGAGG | AGACCAAGGC | ACAGGACATT | CTGGGAGCAG | TGACCCTTCT | GCTGGAGGGA | 780 |
| GTGATGGCAG | CACGGGGACA | ACTGGGACCC | ACTTGCCTCT | CATCCCTCCT | GGGGCAGCTT | 840 |
| TCTGGACAGG | TCCGTCTCCT | CCTTGGGGCC | CTGCAGAGCC | TCCTTGGAAC | CCAGCTTCCT | 900 |
| CCACAGGGCA | GGACCACAGC | TCACAAG | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:153:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 927 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:153:

| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | CCGAAACCTT | 120 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 180 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 240 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 300 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 360 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 420 |
| CATAAATCTC | CAAACATGGC | CATCTTCCTG | AGCTTCCAAC | ACCTGCTCCG | AGGAAAGGTG | 480 |
| CGTTTCCTGA | TGCTTGTAGG | AGGGTCCACC | CTCTGCGTCA | GGGAATTCGG | CGGCAACGGC | 540 |
| GGCAACATGG | CGTCCCCAGC | GCCGCCTGCT | TGTGACCTCC | GAGTCCTCAG | TAAACTGCTT | 600 |
| CGTGACTCCC | ATGTCCTTCA | CAGCAGACTG | AGCCAGTGCC | CAGAGGTTCA | CCCTTTGCCT | 660 |

| ACACCTGTCC | TGCTGCCTGC | TGTGGACTTT | AGCTTGGGAG | AATGGAAAAC | CCAGATGGAG | 720 |
|------------|------------|------------|------------|------------|------------|-----|
| GAGACCAAGG | CACAGGACAT | TCTGGGAGCA | GTGACCCTTC | TGCTGGAGGG | AGTGATGGCA | 780 |
| GCACGGGGAC | AACTGGGACC | CACTTGCCTC | TCATCCCTCC | TGGGGCAGCT | TTCTGGACAG | 840 |
| GTCCGTCTCC | TCCTTGGGGC | CCTGCAGAGC | CTCCTTGGAA | CCCAGCTTCC | TCCACAGGGC | 900 |
| AGGACCACAG | CTCACAAGGA | TCCCAAT | | | | 927 |

(2) INFORMATION FOR SEQ ID NO:154:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 906 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:154:

GCTAACTGCT CTATAATGAT CGATGAAATT ATACATCACT TAAAGAGACC ACCTGCACCT 60 TTGCTGGACC CGAACAACCT CAATGACGAA GACGTCTCTA TCCTGATGGA CCGAAACCTT 120 CGACTTCCAA ACCTGGAGAG CTTCGTAAGG GCTGTCAAGA ACTTAGAAAA TGCATCAGGT 180 ATTGAGGCAA TTCTTCGTAA TCTCCAACCA TGTCTGCCCT CTGCCACGGC CGCACCCTCT 240 CGACATCCAA TCATCATCAA GGCAGGTGAC TGGCAAGAAT TCCGGGAAAA ACTGACGTTC 300 TATCTGGTTA CCCTTGAGCA AGCGCAGGAA CAACAGTACG TAGAGGGCGG TGGAGGCTCC 360 CCGGGTGAAC CGTCTGGTCC AATCTCTACT ATCAACCCGT CTCCTCCGTC TAAAGAATCT 420 CATAAATCTC CAAACATGGA TCCCAATGCC ATCTTCCTGA GCTTCCAACA CCTGCTCCGA 480 GGAAAGGTGC GTTTCCTGAT GCTTGTAGGA GGGTCCACCC TCTGCGTCAG GGAATTCGGC 540 GGCAACATGG CGTCTCCCGC TCCGCCTGCT TGTGACCTCC GAGTCCTCAG TAAACTGCTT 600 CGTGACTCCC ATGTCCTTCA CAGCAGACTG AGCCAGTGCC CAGAGGTTCA CCCTTTGCCT 660 ACACCTGTCC TGCTGCCTGC TGTGGACTTT AGCTTGGGAG AATGGAAAAC CCAGATGGAG 720 GAGACCAAGG CACAGGACAT TCTGGGAGCA GTGACCCTTC TGCTGGAGGG AGTGATGGCA 780 GCACGGGGAC AACTGGGACC CACTTGCCTC TCATCCCTCC TGGGGCAGCT TTCTGGACAG 840 GTCCGTCTCC TCCTTGGGGC CCTGCAGAGC CTCCTTGGAA CCCAGGGCAG GACCACAGCT 900

CACAAG 906

(2) INFORMATION FOR SEQ ID NO:155:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 993 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:155:

| ATGGCTAACT GCTCTATAAT GATG | CGATGAA ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|----------------------------|--------------------|------------|------------|-----|
| CCTTTGCTGG ACCCGAACAA CCTC | CAATGAC GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC CAAACCTGGA GAGG | CTTCGTA AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG CAATTCTTCG TAA | TCTCCAA CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC CAATCATCAT CAAG | GGCAGGT GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG TTACCCTTGA GCA | AGCGCAG GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG AACCGTCTGG TCCA | AATCTCT ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT CTCCAAACAT GTC | TTACAAG CTGTGCCACC | CCGAGGAGCT | GGTGCTGCTC | 480 |
| GGACACTCTC TGGGCATCCC CTGG | GGCTCCC CTGAGCTCCT | GCCCCAGCCA | GGCCCTGCAG | 540 |
| CTGGCAGGCT GCTTGAGCCA ACTO | CCATAGC GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | 600 |
| GCCCTGGAAG GGATATCCCC CGAG | GTTGGGT CCCACCTTGG | ACACACTGCA | GCTGGACGTC | 660 |
| GCCGACTTTG CCACCACCAT CTG | GCAGCAG ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | 720 |
| CAGCCCACCC AGGGTGCCAT GCCC | GGCCTTC GCCTCTGCTT | TCCAGCGCCG | GGCAGGAGGG | 780 |
| GTCCTGGTTG CTAGCCATCT GCAG | GAGCTTC CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | 840 |
| CTTGCGCAGC CCGGCGGCGG CTC | TGACATG GCTACACCAT | TAGGCCCTGC | CAGCTCCCTG | 900 |
| CCCCAGAGCT TCCTGCTCAA GTC | TTTAGAG CAAGTGAGGA | AGATCCAGGG | CGATGGCGCA | 960 |
| GCGCTCCAGG AGAAGCTGTG TGCC | CACCTAA TAA | | | 993 |

(2) INFORMATION FOR SEQ ID NO:156:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 993 base pairs
 - (B) TYPE: nucleic acid

- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:156:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GTCTCCCGAG | TTGGGTCCCA | CCTTGGACAC | ACTGCAGCTG | 480 |
| GACGTCGCCG | ACTTTGCCAC | CACCATCTGG | CAGCAGATGG | AAGAACTGGG | AATGGCCCCT | 540 |
| GCCCTGCAGC | CCACCCAGGG | TGCCATGCCG | GCCTTCGCCT | CTGCTTTCCA | GCGCCGGGCA | 600 |
| | | | | | | |
| GGAGGGGTCC | TGGTTGCTAG | CCATCTGCAG | AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | 660 |
| CGCCACCTTG | CGCAGCCCGG | CGGCGGCTCT | GACATGGCTA | CACCATTAGG | CCCTGCCAGC | 720 |
| TCCCTGCCCC | AGAGCTTCCT | GCTCAAGTCT | TTAGAGCAAG | TGAGGAAGAT | CCAGGGCGAT | 780 |
| GGCGCAGCGC | TCCAGGAGAA | GCTGTGTGCC | ACCTACAAGC | TGTGCCACCC | CGAGGAGCTG | 840 |
| GTGCTGCTCG | GACACTCTCT | GGGCATCCCC | TGGGCTCCCC | TGAGCTCCTG | CCCCAGCCAG | 900 |
| GCCCTGCAGC | TGGCAGGCTG | CTTGAGCCAA | CTCCATAGCG | GCCTTTTCCT | CTACCAGGGG | 960 |
| CTCCTGCAGG | CCCTGGAAGG | GATATCCTAA | TAA | | | 993 |

(2) INFORMATION FOR SEQ ID NO:157:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 993 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:157:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAĞ | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GTCTTCTGCT | TTCCAGCGCC | GGGCAGGAGG | GGTCCTGGTT | 480 |
| GCTAGCCATC | TGCAGAGCTT | CCTGGAGGTG | TCGTACCGCG | TTCTACGCCA | CCTTGCGCAG | 540 |
| CCCGGCGGCG | GCTCTGACAT | GGCTACACCA | TTAGGCCCTG | CCAGCTCCCT | GCCCCAGAGC | 600 |
| TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGG | AAGATCCAGG | GCGATGGCGC | AGCGCTCCAG | 660 |
| GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | CACCCGAGG | AGCTGGTGCT | GCTCGGACAC | 720 |
| TCTCTGGGCA | TCCCCTGGGC | TCCCCTGAGC | TCCTGCCCCA | GCCAGGCCCT | GCAGCTGGCA | 780 |
| GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | TTCCTCTACC | AGGGGCTCCT | GCAGGCCCTG | 840 |
| GAAGGGATAT | CCCCGAGTT | GGGTCCCACC | TTGGACACAC | TGCAGCTGGA | CGTCGCCGAC | 900 |
| TTTGCCACCA | CCATCTGGCA | GCAGATGGAA | GAACTGGGAA | TGGCCCCTGC | CCTGCAGCCC | 960 |
| ACCCAGGGTG | CCATGCCGGC | CTTCGCCTAA | TAA | | | 993 |

(2) INFORMATION FOR SEQ ID NO:158:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 993 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:158:

| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
|------------|------------|------------|------------|------------|------------|-----|
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GTCTATGGCC | CCTGCCCTGC | AGCCCACCCA | GGGTGCCATG | 480 |
| CCGGCCTTCG | CCTCTGCTTT | CCAGCGCCGG | GCAGGAGGGG | TCCTGGTTGC | TAGCCATCTG | 540 |
| CAGAGCTTCC | TGGAGGTGTC | GTACCGCGTT | CTACGCCACC | TTGCGCAGCC | CGGCGGCGGC | 600 |
| TCTGACATGG | CTACACCATT | AGGCCCTGCC | AGCTCCCTGC | CCCAGAGCTT | CCTGCTCAAG | 660 |
| TCTTTAGAGC | AAGTGAGGAA | GATCCAGGGC | GATGGCGCAG | CGCTCCAGGA | GAAGCTGTGT | 720 |
| GCCACCTACA | AGCTGTGCCA | CCCCGAGGAG | CTGGTGCTGC | TCGGACACTC | TCTGGGCATC | 780 |
| CCCTGGGCTC | CCCTGAGCTC | CTGCCCCAGC | CAGGCCCTGC | AGCTGGCAGG | CTGCTTGAGC | 840 |
| CAACTCCATA | GCGGCCTTTT | CCTCTACCAG | GGGCTCCTGC | AGGCCCTGGA | AGGGATATCC | 900 |
| CCCGAGTTGG | GTCCCACCTT | GGACACACTG | CAGCTGGACG | TCGCCGACTT | TGCCACCACC | 960 |
| ATCTGGCAGC | AGATGGAAGA | ACTGGGATAA | TAA | | | 993 |

(2) INFORMATION FOR SEQ ID NO:159:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 993 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:159:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |

| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GTCTACCCAG | GGTGCCATGC | CGGCCTTCGC | CTCTGCTTTC | 480 |
| CAGCGCCGGG | CAGGAGGGGT | CCTGGTTGCT | AGCCATCTGC | AGAGCTTCCT | GGAGGTGTCG | 540 |
| TACCGCGTTC | TACGCCACCT | TGCGCAGCCC | GGCGGCGGCT | CTGACATGGC | TACACCATTA | 600 |
| GGCCCTGCCA | GCTCCCTGCC | CCAGAGCTTC | CTGCTCAAGT | CTTTAGAGCA | AGTGAGGAAG | 660 |
| ATCCAGGGCG | ATGGCGCAGC | GCTCCAGGAG | AAGCTGTGTG | CCACCTACAA | GCTGTGCCAC | 720 |
| CCCGAGGAGC | TGGTGCTGCT | CGGACACTCT | CTGGGCATCC | CCTGGGCTCC | CCTGAGCTCC | 780 |
| TGCCCCAGCC | AGGCCCTGCA | GCTGGCAGGC | TGCTTGAGCC | AACTCCATAG | CGGCCTTTTC | 840 |
| CTCTACCAGG | GGCTCCTGCA | GGCCCTGGAA | GGGATATCCC | CCGAGTTGGG | TCCCACCTTG | 900 |
| GACACACTGC | AGCTGGACGT | CGCCGACTTT | GCCACCACCA | TCTGGCAGCA | GATGGAAGAA | 960 |
| CTGGGAATGG | CCCCTGCCCT | GCAGCCCTAA | TAA | | | 993 |

(2) INFORMATION FOR SEQ ID NO:160:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1027 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:160:

| ATGGCTACA | C CATTGGGCCC | TGCCAGCTCC | CTGCCCCAGA | GCTTCCTGCT | CAAGTCTTTA | 60 |
|-----------|--------------|------------|------------|------------|------------|-----|
| GAGCAAGTG | A GGAAGATCCA | GGGCGATGGC | GCAGCGCTCC | AGGAGAAGCT | GTGTGCCACC | 120 |
| TACAAGCTG | T GCCACCCGA | GGAGCTGGTG | CTGCTCGGAC | ACTCTCTGGG | CATCCCCTGG | 180 |
| GCTCCCCTG | A GCTCCTGCCC | CAGCCAGGCC | CTGCAGCTGG | CAGGCTGCTT | GAGCCAACTC | 240 |
| CATAGCGGC | C TTTTCCTCTA | CCAGGGGCTC | CTGCAGGCCC | TGGAAGGGAT | ATCCCCCGAG | 300 |
| TTGGGTCCC | A CCTTGGACAC | ACTGCAGCTG | GACGTCGCCG | ACTTTGCCAC | CACCATCTGG | 360 |
| CAGCAGATG | G AAGAACTGGG | AATGGCCCCT | GCCCTGCAGC | CCACCCAGGG | TGCCATGCCG | 420 |
| GCCTTCGCC | T CTGCTTTCCA | GCGCCGGGCA | GGAGGGGTCC | TGGTTGCTAG | CCATCTGCAG | 480 |

| AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | CGCCACCTTG | CGCAGCCCGG | CGGCGGCTCT | 540 |
|------------|------------|------------|------------|------------|------------|------|
| GACATGGCTA | CACCATTGGG | CCCTGCCAGC | TCCCTGCCCC | AGAGCTTCCT | GCTCAAGTCT | 600 |
| TTAGAGCAAG | TGAGGAAGAT | CCAGGGCGAT | GGCGCAGCGC | TCCAGGAGAA | GCTGTGTGCC | 660 |
| ACCTACAAGC | TGTGCCACCC | CGAGGAGCTG | GTGCTGCTCG | GACACTCTCT | GGGCATCCCC | 720 |
| TGGGCTCCCC | TGAGCTCCTG | CCCCAGCCAG | GCCCTGCAGC | TGGCAGGCTG | CTTGAGCCAA | 780 |
| CTCCATAGCG | GCCTTTTCCT | CTACCAGGGG | CTCCTGCAGG | CCCTGGAAGG | GATATCCCCC | 840 |
| GAGTTGGGTC | CCACCTTGGA | CACACTGCAG | CTGGACGTCG | CCGACTTTGC | CACCACCATC | 900 |
| TGGCAGCAGA | TGGAAGAACT | GGGAATGGCC | CCTGCCCTGC | AGCCCACCCA | TCCTGGTTGC | 960 |
| TAGCCATCTG | CAGAGCTTCC | TGGAGGTGTC | GTACCGCGTT | CTACGCCACC | TTGCGCAGCC | 1020 |
| CTGATAA | | | | | | 1027 |

(2) INFORMATION FOR SEQ ID NO:161:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 155 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:161:

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30

His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45

Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 50 55 60

Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 80

Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 95

Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
100 105 110

Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe

115 120 125

Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140

Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe 145 150 155

- (2) INFORMATION FOR SEQ ID NO:162:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:162:

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 5 10 15

Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30

His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45

Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 50 60

Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 80

Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 95

Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110

Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125

Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140

Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Met Ala 145 150 155 160

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 165 170 175

Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val

180 185 190

His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 195 200 205

Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 210 215 220

Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 225 235 240

Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 245 250 255

Val Arg Leu Leu Gly Ala Leu Gl
n Ser Leu Leu Gly Thr Gl
n Gly 260 265 270

Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln 275 280 285

His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser 290 295 300

Thr Leu Cys Val Arg 305

(2) INFORMATION FOR SEQ ID NO:163:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 312 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:163:

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 5 10 15

Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30

His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45

Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 50 55 60

Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 80

Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln

90 95

Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 105 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 120 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 135 Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Asn Met Ala Ser 145 150 155 Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg 170 Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His 180 185 Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly 200 Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Arg Gly Gln Leu 225 230 Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val 250 Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro 265 Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu 275 280 Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val 300

(2) INFORMATION FOR SEQ ID NO:164:

305

(i) SEQUENCE CHARACTERISTICS:

Gly Gly Ser Thr Leu Cys Val Arg

(A) LENGTH: 313 amino acids

310

- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:164:

- Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 5 10 15
- Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30
- His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45 .
- Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 50 60
- Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 80
- Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 95
- Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110
- Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125
- Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140
- Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Met Ala 145 150 155 160
- Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 165 170 175
- Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 180 185 190
- His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 195 200 205
- Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 210 215 220
- Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 225 230 235 240
- Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
 245 250 255
- Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 260 265 270
- Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 275 280 285
- Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu

290 295 300

Val Gly Gly Ser Thr Leu Cys Val Arg 305 310

(2) INFORMATION FOR SEQ ID NO:165:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 316 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:165:
- Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 5 10 15
- Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30
- His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45
- Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 50 60
- Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 80
- Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 95
- Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 100 105 110
- Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125
- Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140
- Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Gly Gly 145 150 155 160
- Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser 165 170 175
- Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys 180 185 190
- Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp

195 200 205

Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln 210 225 220

Asp Ile Leu Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala 225 230 235 240

Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu 245 250 255

Ser Gly Gln Val Arg Leu Leu Eu Gly Ala Leu Gln Ser Leu Leu Gly 260 265 270

Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn 275 280 285

Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe 290 295 300

Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg 305 310 315

(2) INFORMATION FOR SEQ ID NO:166:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 302 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEO ID NO:166:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val 35 40 45

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60

Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80

His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95

Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr

Val Glu Gly Gly Gly Ser Pro Gly Gly Gly Ser Gly Gly Ser 115 120 125

Asn Met Ala Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly 130 135 140

His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln 145 150 155 160

Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe 165 170 175

Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu 180 185 190

Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr
195 200 205

Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln 210 220

Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg 225 230 235 240

Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu Val 245 250 255

Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Ser Gly Gly Ser Gly 260 265 270

Gly Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile 275 280 285

Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr 290 295 300

(2) INFORMATION FOR SEQ ID NO:167:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 317 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:167:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val 40 Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 90 Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr 100 105 Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser 120 Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn 130 Met Ala Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His 155 Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala 170 Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu 185 Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly 200 Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr 210 215 220 Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro 230 235 Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala 250 Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Ser Gly Gly Ser Gly Gly 280 Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arq Lys Ile Gln 290 295 Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr

(2) INFORMATION FOR SEQ ID NO:168:

310

315

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 302 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:168:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60

Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg

70 75 80

His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95

Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Gln Gln Tyr 100 105 110

Val Glu Gly Gly Gly Ser Pro Gly Gly Gly Ser Gly Gly Ser 115 120 125

Asn Met Ala Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp 130 135 140

Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly
145 150 155 160

Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala 165 170 175

Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu 180 185 190

Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln 195 200 205

Pro Ser Gly Gly Ser Gly Ser Gln Ser Phe Leu Leu Lys Ser Leu 210 215 220

Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 225 230 235 240

Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 245 250 255

Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 260 265 270

Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 275 280 285

Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser 290 295 300

(2) INFORMATION FOR SEQ ID NO:169:

- (i) SEOUENCE CHARACTERISTICS:
 - (A) LENGTH: 317 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:169:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val 35 40 45

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60

Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80

His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95

Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr 100 105 110

Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser 115 120 125

Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn 130 135 140

Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met 175

Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser 190

Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln 200

Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 215

Ser Gly Gly Ser Gly Gly Ser Gln Ser Phe Leu Lys Ser Leu Glu 240

Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu

Met Ala Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val

245 250 255

Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly 260 265 270

His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln 275 280 285

Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe 290 295 300

Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser 305 310 315

(2) INFORMATION FOR SEQ ID NO:170:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 302 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:170:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val 35 40 45

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 70 75 His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Gly Gly Ser Gly Gly Ser 120 Asn Met Ala Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro 130 135 Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala 150 155 Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His 165 170 Leu Ala Gln Pro Ser Gly Gly Ser Gly Ser Gln Ser Phe Leu Leu 185 190 Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu 215 Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser 225 230 235 Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His 250 Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile 260 265 270 Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala

(2) INFORMATION FOR SEQ ID NO:171:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 317 amino acids

Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly
290 295 300

- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:171:

- Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15
- Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30
- Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val 35 40 45
- Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60
- Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80
- His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95
- Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln Tyr 100 105 110
- Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser 115 120 125
- Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn 130 135 140
- Met Ala Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala 145 150 155 160
- Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser 165 170 175
- His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu 180 185 190
- Ala Gln Pro Ser Gly Gly Ser Gly Gly Ser Gln Ser Phe Leu Leu Lys 195 200 205
- Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln 210 215 220
- Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val 225 230 235 240
- Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys 245 250 255
- Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser 260 265 270

Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser 275 280 285

Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp 290 295 300

Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly 305 310 315

(2) INFORMATION FOR SEQ ID NO:172:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 302 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:172:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val
35 40 45

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60

Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 70 75 80

His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95

Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr 100 105 110

Val Glu Gly Gly Gly Ser Pro Gly Gly Gly Ser Gly Gly Ser 115 120 125

Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln 130 135 140

Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu 145 150 155 160

Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Ser Gly Gly
165 170 175

Ser Gly Gly Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg 180 185 190

Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr 195 200 205

Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu 210 215 220

Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln 225 230 235 240

Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln
245 250 255

Gly Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr 260 265 270

Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp 275 280 285

Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro 290 295 300

(2) INFORMATION FOR SEQ ID NO:173:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 317 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:173:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val
35 40 45

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60

Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80

His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95

- Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln Tyr
 100 105 110
- Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser 115 120 125
- Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn 130 135 140
- Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 145 150 155 160
- Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 165 170 175
- Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Ser Gly Gly Ser 180 185 190
- Gly Gly Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys 195 200 205
- Ile Gl
n Gly Asp Gly Ala Ala Leu Gl
n Glu Lys Leu Cys Ala Thr Tyr 210 215 220
- Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly 225 230 235 240
- Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu 245 250 255
- Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly 260 265 270
- Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu 275 280 285
- Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln 290 295 300
- Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro 305 310 315

(2) INFORMATION FOR SEQ ID NO:174:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 302 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:174:

| Asn 1 | Cys | Ser | Ile | Met 5 | Ile | Asp | Glu | Ile | Ile 10 | His | His | Leu | Lys | Arg 15 | Pro |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Pro | Ala | Pro | Leu 20 | Leu | Asp | Pro | Asn | Asn 25 | Leu | Asn | Asp | Glu | Asp 30 | Val | Ser |
| Ile | Leu | Met 35 | Asp | Arg | Asn | Leu | Arg 40 | Leu | Pro | Asn | Leu | Glu 45 | Ser | Phe | Val |
| Arg | Ala 50 | Val | Lys | Asn | Leu | Glu 55 | Asn | Ala | Ser | Gly | Ile 60 | Glu | Ala | Ile | Leu |
| Arg 65 | Asn | Leu | Gln | Pro | Cys 70 | Leu | Pro | Ser | Ala | Thr 75 | Ala | Ala | Pro | Ser | Arg 80 |
| His | Pro | Ile | Ile | Ile 85 | Lys | Ala | Gly | Asp | Trp 90 | Gln | Glu | Phe | Arg | Glu 95 | Lys |
| Leu | Thr | Phe | Tyr 100 | Leu | Val | Thr | Leu | Glu 105 | Gln | Ala | Gln | Glu | Gln 110 | Gln | Tyr |
| Val | Glu | Gly 115 | Gly | Gly | Gly | Ser | Pro 120 | Gly | Gly | Gly | Ser | Gly 125 | Gly | Gly | Ser |
| Asn | Met 130 | Ala | Ser | Ala | Phe | Gln 135 | Arg | Arg | Ala | Gly | Gly 140 | Val | Leu | Val | Ala |
| Ser 145 | His | Leu | Gln | Ser | Phe 150 | Leu | Glu | Val | Ser | Tyr 155 | Arg | Val | Leu | Arg | His 160 |
| Leu | Ala | Gln | Pro | Ser 165 | Gly | Gly | Ser | Gly | Gly 170 | Ser | Gln | Ser | Phe | Leu 175 | Leu |
| Lys | Ser | Leu | Glu 180 | Gln | Val | Arg | Lys | Ile 185 | Gln | Gly | Asp | Gly | Ala 190 | Ala | Leu |
| Gln | Glu | Lys 195 | Leu | Cys | Ala | Thr | Tyr 200 | Lys | Leu | Cys | His | Pro 205 | Glu | Glu | Leu ' |
| Val | Leu 210 | Leu | Gly | His | Ser | Leu 215 | Gly | Ile | Pro | Trp | Ala 220 | Pro | Leu | Ser | Ser |
| Cys 225 | Pro | Ser | Gln | Ala | Leu 230 | Gln | Leu | Ala | Gly | Cys 235 | Leu | Ser | Gln | Leu | His 240 |
| Ser | Gly | Leu | Phe | Leu 245 | Tyr | Gln | Gly | Leu | Leu 250 | Gln | Ala | Leu | Glu | Gly 255 | Ile |
| Ser | Pro | Glu | Leu 260 | Gly | Pro | Thr | Leu | Asp 265 | Thr | Leu | Gln | Leu | Asp 270 | Val | Ala |
| Asp | Phe | Ala 275 | Thr | Thr | Ile | Trp | Gln 280 | Gln | Met | Glu | Glu | Leu 285 | Gly | Met | Ala |
| Pro | Ala 290 | | Gln | Pro | Thr | Gln 295 | Gly | Ala | Met | Pro | Ala 300 | Phe | Ala | | |

(2) INFORMATION FOR SEQ ID NO:175:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 317 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:175:
- Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15
- Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30
- Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val

 45
- Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60
- Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80
- His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95
- Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr
 100 105 110
- Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser 115 120 125
- Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn 130 135 140
- Met Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser 145 150 155 160
- His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu 165 170 175
- Ala Gln Pro Ser Gly Gly Ser Gly Gly Ser Gln Ser Phe Leu Lys 180 185 190
- Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln 195 200 205
- Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val 210 215 220

Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys 225 230 235 240

Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser 245 250 255

Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser 260 265 270

Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp 275 280 285

Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro 290 295 300

Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala 305 310 315

(2) INFORMATION FOR SEQ ID NO:176:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:176:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60

Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80

His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95

Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr
100 105 110

Val Glu Gly Gly Gly Ser Pro Gly Gly Gly Ser Gly Gly Gly Ser 115 120 125

Asn Met Ala Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly 130 135 140

His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln 145 150 155 160

Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe 165 170 175

Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu 180 185 190

Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr 195 200 205

Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln 210 220

Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg 225 230 235 240

Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu Val 245 250 255

Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Thr Pro Leu Gly Pro $260 \hspace{1cm} 265 \hspace{1cm} 270 \hspace{1cm}$

Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val 275 280 285

Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala 290 295 300

Thr

(2) INFORMATION FOR SEQ ID NO:177:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 320 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:177:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val 40 Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn 135 Met Ala Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His 150 145 Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala 170 Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu 185 Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro 225 230 235 Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala 245 250 Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser 265 Tyr Arg Val Leu Arg His Leu Ala Gln Pro Thr Pro Leu Gly Pro Ala 275 280 Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg 295 Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr 315

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:178:
- Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15
- Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30
- Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val 35 40 45
- Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60
- Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80
- His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95
- Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Gln Gln Tyr
 100 105 110
- Val Glu Gly Gly Gly Ser Pro Gly Gly Gly Ser Gly Gly Ser 115 120 125
- Asn Met Ala Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp 130 135 140
- Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly 145 150 155 160
- Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala 165 170 175
- Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu 180 185 190
- Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln 195 200 205
- Pro Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu 210 215 220
- Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu

225 230 235 240

Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu 245 250 255

Val Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser 260 265 270

Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His 275 280 285

Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile 290 295 300

Ser

(2) INFORMATION FOR SEQ ID NO:179:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 320 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:179:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val
35 40 45

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60

Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80

His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95

Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr 100 105 110

Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser 115 120 125

Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn

130 135 140

Met Ala Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val 150 155 Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met 165 170 Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser 185 Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln 200 205 Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys 230 235 Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys 275 280 285 Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser

Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser

315

(2) INFORMATION FOR SEQ ID NO:180:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids

310

- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:180:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

| Ile | Leu | Met 35 | Asp | Arg | Asn | Leu | Arg 40 | Leu | Pro | Asn | Leu | Glu 45 | Ser | Phe | Val |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Arg | Ala 50 | Val | Lys | Asn | Leu | Glu 55 | Asn | Ala | Ser | Gly | Ile 60 | Glu | Ala | Ile | Leu |
| Arg 65 | Asn | Leu | Gln | Pro | Cys 70 | Leu | Pro | Ser | Ala | Thr 75 | Ala | Ala | Pro | Ser | Arg 80 |
| His | Pro | Ile | Ile | Ile 85 | Lys | Ala | Gly | Asp | Trp 90 | Gln | Glu | Phe | Arg | Glu 95 | Lys |
| Leu | Thr | Phe | Tyr 100 | Leu | Val | Thr | Leu | Glu 105 | Gln | Ala | Gln | Glu | Gln 110 | Gln | Tyr |
| Val | Glu | Gly 115 | Gly | Gly | Gly | Ser | Pro 120 | Gly | Gly | Gly | Ser | Gly 125 | Gly | Gly | Ser |
| Asn | Met 130 | Ala | Met | Ala | Pro | Ala 135 | Leu | Gln | Pro | Thr | Gln 140 | Gly | Ala | Met | Pro |
| Ala 145 | Phe | Ala | Ser | Ala | Phe 150 | Gln | Arg | Arg | Ala | Gly 155 | Gly | Val | Leu | Val | Ala 160 |
| Ser | His | Leu | Gln | Ser 165 | Phe | Leu | Glu | Val | Ser 170 | Tyr | Arg | Val | Leu | Arg 175 | His |
| Leu | Ala | Gln | Pro 180 | Thr | Pro | Leu | Gly | Pro 185 | Ala | Ser | Ser | Leu | Pro 190 | Gln | Ser |
| Phe | Leu | Leu 195 | Lys | Ser | Leu | Glu | Gln 200 | Val | Arg | Lys | Ile | Gln 205 | Gly | Asp | Gly |
| Ala | Ala 210 | Leu | Gln | Glu | Lys | Leu 215 | Cys | Ala | Thr | Tyr | Lys 220 | Leu | Cys | His | Pro |
| Glu 225 | Glu | Leu | Val | Leu | Leu 230 | Gly | His | Ser | Leu | Gly 235 | Ile | Pro | Trp | Ala | Pro 240 |
| Leu | Ser | Ser | Cys | Pro 245 | Ser | Gln | Ala | Leu | Gln 250 | Leu | Ala | Gly | Cys | Leu 255 | Ser |
| Gln | Leu | His | Ser 260 | Gly | Leu | Phe | Leu | Tyr 265 | Gln | Gly | Leu | Leu | Gln 270 | Ala | Leu |
| Glu | Gly | Ile 275 | Ser | Pro | Glu | Leu | Gly 280 | Pro | Thr | Leu | Asp | Thr 285 | Leu | Gln | Leu |
| Asp | Val 290 | Ala | Asp | Phe | Ala | Thr 295 | Thr | Ile | Trp | Gln | Gln 300 | Met | Glu | Glu | Leu |
| Gly 305 | | | | | | | | | | | | | | | |

(2) INFORMATION FOR SEQ ID NO:181:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 320 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:181:

- Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15
- Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30
- Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val 35 40 45
- Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60
- Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80
- His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95
- Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr 100 105 110
- Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser 115 120 125
- Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn 130 135 140
- Met Ala Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala 145 150 155 160
- Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser 165 170 175
- His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu 180 185 190
- Ala Gln Pro Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe 195 200 205
- Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala 210 215 220
- Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu 225 230 235 240

Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu 245 250 255

Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln 260 265 270

Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu 275 280 285

Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp 290 295 300

Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly 305 310 315 320

(2) INFORMATION FOR SEQ ID NO:182:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:182:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val 35 40 45

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 60

Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80

His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95

Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln Tyr 100 105 110

Val Glu Gly Gly Gly Ser Pro Gly Gly Gly Ser Gly Gly Ser 115 120 125

Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln 130 135 140 Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu 145 150 155 160

Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Thr Pro Leu 165 170 175

Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu 180 185 190

Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu 195 200 205

Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly 210 215 220

His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln 225 230 235 240

Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe 245 250 255

Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu 260 265 270

Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr 275 280 285

Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln 290 295 300

Pro 305

(2) INFORMATION FOR SEQ ID NO:183:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 320 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:183:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 75 70 His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 90 Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr 105 Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser 120 Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 150 155 Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 170 Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Thr Pro Leu Gly 180 185 Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln 200 Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His 230 235 Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu 265 Tyr Gln Gly Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly 280 Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr 290 295 Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro 310 315

(2) INFORMATION FOR SEQ ID NO:184:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 305 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:184:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val\$35\$ 40 45

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60

Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 70 75 80

His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys 85 90 95

Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Tyr 100 105 110

Val Glu Gly Gly Gly Ser Pro Gly Gly Gly Ser Gly Gly Gly Ser 115 120 125

Asn Met Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala 130 135 140

Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His 145 150 155 160

Leu Ala Gln Pro Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser 165 170 175

Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly
180 185 190

Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro
195 200 205

Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro 210 215 220

Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser 225 230 235 240

Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu

245 250 255

Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu 260 265 270

Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu 275 280 285

Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe 290 295 300

Ala 305

(2) INFORMATION FOR SEQ ID NO:185:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 320 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:185:

Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro 1 5 10 15

Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser 20 25 30

Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu 50 55 60

Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg 65 70 75 80

His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys
85 90 95

Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln Tyr 100 105 110

Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser 115 120 125

Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn 130 135 140

Met Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser

| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| His | Leu | Gln | Ser | Phe 165 | Leu | Glu | Val | Ser | Tyr 170 | Arg | Val | Leu | Arg | His 175 | Let |
| Ala | Gln | Pro | Thr 180 | Pro | Leu | Gly | Pro | Ala 185 | Ser | Ser | Leu | Pro | Gln 190 | Ser | Phe |
| Leu | Leu | Lys 195 | Ser | Leu | Glu | Gln | Val 200 | Arg | Lys | Ile | Gln | Gly 205 | Asp | Gly | Ala |
| Ala | Leu 210 | Gln | Glu | Lys | Leu | Cys 215 | Ala | Thr | Tyr | Lys | Leu 220 | Cys | His | Pro | Glu |
| Glu 225 | Leu | Val | Leu | Leu | Gly 230 | His | Ser | Leu | Gly | Ile 235 | Pro | Trp | Ala | Pro | Let 240 |
| Ser | Ser | Cys | Pro | Ser 245 | Gln | Ala | Leu | Gln | Leu 250 | Ala | Gly | Cys | Leu | Ser 255 | Glr |
| Leu | His | Ser | Gly 260 | Leu | Phe | Leu | Tyr | Gln 265 | Gly | Leu | Leu | Gln | Ala 270 | Leu | Glu |
| Gly | Ile | Ser 275 | Pro | Glu | Leu | Gly | Pro 280 | Thr | Leu | Asp | Thr | Leu 285 | Gln | Leu | Asp |
| Val | Ala 290 | Asp | Phe | Ala | Thr | Thr 295 | Ile | Trp | Gln | Gln | Met 300 | Glu | Glu | Leu | Gly |
| Met 305 | Ala | Pro | Ala | Leu | Gln 310 | Pro | Thr | Gln | Gly | Ala 315 | Met | Pro | Ala | Phe | Ala 320 |

(2) INFORMATION FOR SEQ ID NO:186:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 321 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:186:

Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser Ile Leu Met Asp 1 5 10 15

Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val Arg Ala Val Lys 20 25 30

Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln 35 40 45

Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile 50 Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln Gly Gly Ser Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro Pro Ala Pro Leu Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser 120 Gly Pro Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His 135 140 Lys Ser Pro Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser 150 155 Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln 170 Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 185 Ser Gly Gly Ser Gly Gly Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu 215 Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly 225 230 235 240 His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln 250 Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe 260 265 270 Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln 305 310 315 320 Pro

(2) INFORMATION FOR SEQ ID NO:187:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 321 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:187:

- Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu 1 5 10 15
- Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Lys Ala 20 25 30
- Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr 35 40 45
- Leu Glu Gln Ala Gln Glu Gln Gln Gly Gly Gly Ser Asn Cys Ser Ile 50 55 60
- Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro Pro Ala Pro Leu 65 70 75 80
- Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser Ile Leu Met Asp 85 90 95
- Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val Arg Ala Val Lys 100 105 110
- Asn Leu Glu Tyr Val Glu Gly Gly Gly Gly Ser Pro Gly Glu Pro Ser 115 120 125
- Gly Pro Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His 130 135 140
- Lys Ser Pro Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser 145 150 155 160
- Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln 165 170 175
- Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 180 185 190
- Ser Gly Gly Ser Gly Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu 195 200 205
- Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu 210 215 220
- Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly 225 230 235 240

His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln 245 250 255

Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe 260 265 270

Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu 275 280 285

Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr 290 295 300

Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln 305 310 315 320

Pro

(2) INFORMATION FOR SEQ ID NO:188:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 321 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:188:

Ala Pro Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu

5 10 15

Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln 20 25 30

Glu Gln Gly Gly Gly Ser Asn Cys Ser Ile Met Ile Asp Glu Ile 35 40 45

Ile His His Leu Lys Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn 50 55 60

Leu Asn Asp Glu Asp Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu 65 70 75 80

Pro Asn Leu Glu Ser Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala 85 90 95

Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser 100 105 110

Ala Thr Ala Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser 115 120 125

- Gly Pro Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His 130 135 140
- Lys Ser Pro Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser 145 150 155 160
- Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln 165 170 175
- Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 180 185 190
- Ser Gly Gly Ser Gly Gly Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu
 195 200 205
- Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu 210 215 220
- Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly 225 230 235 240
- His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln 245 250 255
- Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe 260 265 270
- Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu 275 280 285
- Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr 290 295 300
- Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln 305 310 315 320

Pro

(2) INFORMATION FOR SEQ ID NO:189:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 321 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:189:
- Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val 1 5 10 15

- Thr Leu Glu Gln Ala Gln Glu Gln Gln Gly Gly Gly Ser Asn Cys Ser 20 25 30

 Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro Pro Ala Pro 35 40 45
- Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser Ile Leu Met
- Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val Arg Ala Val 65 70 75 80
- Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu 85 90 95
- Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile 100 105 110
- Ile Ile Lys Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser 115 120 125
- Gly Pro Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His 130 135 140
- Lys Ser Pro Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser 145 150 155 160
- Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln 165 170 175
- Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 180 185 190
- Ser Gly Gly Ser Gly Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu 195 200 205
- Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu 210 215 220
- Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly 225 230 235 240
- His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln 245 250 255
- Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe 260 265 270
- Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu 275 280 285
- Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr 290 295 300
- Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln

305 310 315 320

Pro

(2) INFORMATION FOR SEQ ID NO:190:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 329 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:190:

Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser Ile Leu Met Asp 1 5 10 15

Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val Arg Ala Val Lys
20 25 30

Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln 35 40 45

Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile 50 55 60

Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr 75 70 80

Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln Gly Gly Ser Gly 85 90 95

Gly Gly Ser Gly Gly Ser Asn Cys Ser Ile Met Ile Asp Glu Ile 100 105 110

Ile His His Leu Lys Arg Pro Pro Ala Pro Leu Tyr Val Glu Gly Gly 115 120 125

Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser Thr Ile Asn Pro 130 135 140

Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn Met Ala Thr Gln 145 150 155 160

Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly 165 170 175

Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg 180 185 190

Val Leu Arg His Leu Ala Gln Pro Ser Gly Gly Ser Gly Gly Ser Gln

Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp 210 215 220

Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His 225 230 235 240

Pro Glu Glu Leu Val Leu Gly His Ser Leu Gly Ile Pro Trp Ala 245 250 255

Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu 260 265 270

Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala 275 280 285

Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln 290 295 300

Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu 305 310 315 320

Leu Gly Met Ala Pro Ala Leu Gln Pro 325

(2) INFORMATION FOR SEQ ID NO:191:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 329 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:191:

Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu 1 5 10 15

Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Lys Ala 20 25 30

Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr 35 40 45

Leu Glu Gln Ala Gln Glu Gln Gln Gly Gly Gly Ser Gly Gly Gly Ser 50 55 60

Gly Gly Gly Ser Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His 65 70 75 80

Leu Lys Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp

| Glu | Asp | Val | Ser 100 | Ile | Leu | Met | Asp | Arg 105 | Asn | Leu | Arg | Leu | Pro 110 | Asn | Leu |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Glu | Ser | Phe 115 | Val | Arg | Ala | Val | Lys 120 | Asn | Leu | Glu | Tyr | Val 125 | Glu | Gly | Gly |
| Gly | Gly 130 | Ser | Pro | Gly | Glu | Pro 135 | Ser | Gly | Pro | Ile | Ser 140 | Thr | Ile | Asn | Pro |
| Ser 145 | Pro | Pro | Ser | Lys | Glu 150 | Ser | His | Lys | Ser | Pro 155 | Asn | Met | Ala | Thr | Glr 160 |
| Gly | Ala | Met | Pro | Ala 165 | Phe | Ala | Ser | Ala | Phe 170 | Gln | Arg | Arg | Ala | Gly 175 | Gly |
| Val | Leu | Val | Ala 180 | Ser | His | Leu | Gln | Ser 185 | Phe | Leu | Glu | Val | Ser 190 | Tyr | Arg |
| Val | Leu | Arg 195 | His | Leu | Ala | Gln | Pro 200 | Ser | Gly | Gly | Ser | Gly 205 | Gly | Ser | Glr |
| Ser | Phe 210 | Leu | Leu | Lys | Ser | Leu 215 | Glu | Gln | Val | Arg | Lys 220 | Ile | Gln | Gly | Asp |
| Gly 225 | Ala | Ala | Leu | Gln | Glu 230 | Lys | Leu | Cys | Ala | Thr 235 | Tyr | Lys | Leu | Cys | His 240 |
| Pro | Glu | Glu | Leu | Val 245 | Leu | Leu | Gly | His | Ser 250 | Leu | Gly | Ile | Pro | Trp 255 | Ala |
| Pro | Leu | Ser | Ser 260 | Cys | Pro | Ser | Gln | Ala 265 | Leu | Gln | Leu | Ala | Gly 270 | Cys | Leu |
| Ser | Gln | Leu 275 | His | Ser | Gly | Leu | Phe 280 | Leu | Tyr | Gln | Gly | Leu 285 | Leu | Gln | Ala |
| Leu | Glu 290 | Gly | Ile | Ser | Pro | Glu 295 | Leu | Gly | Pro | Thr | Leu 300 | Asp | Thr | Leu | Glr |
| Leu 305 | Asp | Val | Ala | Asp | Phe 310 | Ala | Thr | Thr | Ile | Trp 315 | Gln | Gln | Met | Glu | Glu 320 |
| Leu | Gly | Met | Ala | Pro | Ala | Leu | Gln | Pro | | | | | | | |

(2) INFORMATION FOR SEQ ID NO:192:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 329 amino acids

325

- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:192:

- Ala Pro Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu
 1 5 10 15
- Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln 20 25 30
- Glu Gln Gln Gly Gly Gly Ser Gly Gly Ser Gly Gly Ser Asn 35 40 45
- Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro Pro 50 55 60
- Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser Ile 65 70 75 80
- Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val Arg 85 90 95
- Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg 100 105 110
- Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Tyr Val Glu Gly Gly 115 120 125
- Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser Thr Ile Asn Pro 130 135 140
- Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn Met Ala Thr Gln 145 150 155 160
- Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly 165 170 175
- Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg 180 185 190
- Val Leu Arg His Leu Ala Gln Pro Ser Gly Gly Ser Gly Gly Ser Gln 195 200 205
- Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp 210 225
- Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His 225 230 235 240
- Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala 245 250 255
- Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu 260 265 270
- Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala

275 280 285

Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln 290 295 300

Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu 305 310 315 320

Leu Gly Met Ala Pro Ala Leu Gln Pro

(2) INFORMATION FOR SEQ ID NO:193:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 299 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:193:

Gly Gly Ser Gly Gly Ser Asn Cys Ser Ile Met Ile Asp Glu Ile 1 5 10 15

Ile His His Leu Lys Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn 20 25 30

Leu Asn Asp Glu Asp Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu 35 40 45

Pro Asn Leu Glu Ser Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala 50 60

Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser 70 75 80

Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Ile Lys Tyr Val Glu 85 90 95

Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser Thr Ile
100 105 110

Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn Met Ala 115 120 125

Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala 130 135 140

Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser 145 150 155 160

Tyr Arg Val Leu Arg His Leu Ala Gln Pro Ser Gly Gly Ser Gly Gly

165 170 175

Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln 180 185 190

Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu 195 200 205

Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro 210 215 220

Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly 225 230 235 240

Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu 245 250 255

Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr 260 265 270

Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met 275 280 285

Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro 290 295

(2) INFORMATION FOR SEQ ID NO:194:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 329 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:194:

Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15

Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30

Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45

Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 55 60

Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80

Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg

| Glu | Lys | Leu | Thr 100 | Phe | Tyr | Leu | Val | Thr 105 | Leu | Glu | Gln | Ala | Gln 110 | Glu | Gln |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gln | Tyr | Val 115 | Glu | Gly | Gly | Gly | Gly 120 | Ser | Pro | Gly | Glu | Pro 125 | Ser | Gly | Pro |
| Ile | Ser 130 | Thr | Ile | Asn | Pro | Ser 135 | Pro | Pro | Ser | Lys | Glu 140 | Ser | His | Lys | Ser |
| Pro | Asn | Met | Ala | Tyr | Lys | Leu | Cys | His | Pro | Glu | Glu | Leu | Val | Leu | Leu |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | His | Ser | Leu | Gly 165 | Ile | Pro | Trp | Ala | Pro 170 | Leu | Ser | Ser | Cys | Pro 175 | Ser |
| Gln | Ala | Leu | Gln 180 | Leu | Ala | Gly | Cys | Leu 185 | Ser | Gln | Leu | His | Ser 190 | Gly | Leu |
| Phe | Leu | Tyr 195 | Gln | Gly | Leu | Leu | Gln 200 | Ala | Leu | Glu | Gly | Ile 205 | Ser | Pro | Glu |
| Leu | Gly 210 | Pro | Thr | Leu | Asp | Thr 215 | Leu | Gln | Leu | Asp | Val 220 | Ala | Asp | Phe | Ala |
| Thr 225 | Thr | Ile | Trp | Gln | Gln 230 | Met | Glu | Glu | Leu | Gly 235 | Met | Ala | Pro | Ala | Leu 240 |
| Gln | Pro | Thr | Gln | Gly 245 | Ala | Met | Pro | Ala | Phe 250 | Ala | Ser | Ala | Phe | Gln 255 | Arg |
| Arg | Ala | Gly | Gly 260 | Val | Leu | Val | Ala | Ser 265 | His | Leu | Gln | Ser | Phe 270 | Leu | Glu |
| Val | Ser | Tyr 275 | Arg | Val | Leu | Arg | His 280 | Leu | Ala | Gln | Pro | Gly 285 | Gly | Gly | Ser |
| Asp | Met 290 | Ala | Thr | Pro | Leu | Gly 295 | Pro | Ala | Ser | Ser | Leu 300 | Pro | Gln | Ser | Phe |
| Leu 305 | Leu | Lys | Ser | Leu | Glu 310 | Gln | Val | Arg | Lys | Ile 315 | Gln | Gly | Asp | Gly | Ala 320 |
| Ala | Leu | Gln | Glu | Lys | Leu | Cys | Ala | Thr | | | | | | | |

(2) INFORMATION FOR SEQ ID NO:195:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 329 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown

325

- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:195:

- Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15
- Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30
- Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45
- Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 60
- Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80
- Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95
- Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln 100 105 110
- Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125
- Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140
- Pro Asn Met Ala Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu 145 150 155 160
- Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu 165 170 175
- Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe 180 185 190
- Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His 195 200 205
- Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala 210 215 220
- Gln Pro Gly Gly Gly Ser Asp Met Ala Thr Pro Leu Gly Pro Ala Ser 225 230 235 240
- Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys 245 250 255
- Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr 260 265 270

Lys Leu Cys His Pro Glu Glu Leu Val Leu Gly His Ser Leu Gly 275 280 285

Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu 290 295 300

Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly 305 310 315 320

Leu Leu Gln Ala Leu Glu Gly Ile Ser 325

(2) INFORMATION FOR SEQ ID NO:196:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 329 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:196:

Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30

Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45

Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 55 60

Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80

Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95

Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln
100 105 110

Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125

Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140

Pro Asn Met Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val 145 150 155 160 Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg 165 170 175

His Leu Ala Gln Pro Gly Gly Gly Ser Asp Met Ala Thr Pro Leu Gly 180 185 190

Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln 195 200 205

Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys 210 215 220

Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His 225 230 235 240

Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala 245 250 255

Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu 260 265 270

Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly 275 280 285

Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr 290 295 300

Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro 305 310 315 320

Thr Gln Gly Ala Met Pro Ala Phe Ala 325

(2) INFORMATION FOR SEQ ID NO:197:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 329 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:197:

Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15

Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30

Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45

| Phe | Val 50 | Arg | Ala | Val | Lys | Asn 55 | Leu | Glu | Asn | Ala | Ser 60 | Gly | Ile | Glu | Ala |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ile 65 | Leu | Arg | Asn | Leu | Gln 70 | Pro | Cys | Leu | Pro | Ser 75 | Ala | Thr | Ala | Ala | Pro 80 |
| Ser | Arg | His | Pro | Ile 85 | Ile | Ile | Lys | Ala | Gly 90 | Asp | Trp | Gln | Glu | Phe 95 | Arg |
| Glu | Lys | Leu | Thr 100 | Phe | Tyr | Leu | Val | Thr 105 | Leu | Glu | Gln | Ala | Gln 110 | Glu | Gln |
| Gln | Tyr | Val 115 | Glu | Gly | Gly | Gly | Gly 120 | Ser | Pro | Gly | Glu | Pro 125 | Ser | Gly | Pro |
| ļle | Ser 130 | Thr | Ile | Asn | Pro | Ser 135 | Pro | Pro | Ser | Lys | Glu 140 | Ser | His | Lys | Ser |
| Pro 145 | Asn | Met | Ala | Met | Ala 150 | Pro | Ala | Leu | Gln | Pro 155 | Thr | Gln | Gly | Ala | Met 160 |
| Pro | Ala | Phe | Ala | Ser 165 | Ala | Phe | Gln | Arg | Arg 170 | Ala | Gly | Gly | Val | Leu 175 | Val |
| Ala | Ser | His | Leu 180 | Gln | Ser | Phe | Leu | Glu 185 | Val | Ser | Tyr | Arg | Val 190 | Leu | Arg |
| His | Leu | Ala 195 | Gln | Pro | Gly | Gly | Gly 200 | Ser | Asp | Met | Ala | Thr 205 | Pro | Leu | Gly |
| Pro | Ala 210 | Ser | Ser | Leu | Pro | Gln 215 | Ser | Phe | Leu | Leu | Lys 220 | Ser | Leu | Glu | Gln |
| Val 225 | Arg | Lys | Ile | Gln | Gly 230 | Asp | Gly | Ala | Ala | Leu 235 | Gln | Glu | Lys | Leu | Cys 240 |
| Ala | Thr | Tyr | Lys | Leu 245 | Cys | His | Pro | Glu | Glu 250 | Leu | Val | Leu | Leu | Gly 255 | His |
| Ser | Leu | Gly | Ile 260 | Pro | Trp | Ala | Pro | Leu 265 | Ser | Ser | Cys | Pro | Ser 270 | Gln | Ala |
| Leu | Gln | Leu 275 | Ala | Gly | Cys | Leu | Ser 280 | Gln | Leu | His | Ser | Gly 285 | Leu | Phe | Leu |
| Tyr | Gln 290 | Gly | Leu | Leu | Gln | Ala 295 | Leu | Glu | Gly | Ile | Ser 300 | Pro | Glu | Leu | Gly |
| Pro 305 | Thr | Leu | Asp | Thr | Leu 310 | Gln | Leu | Asp | Val | Ala 315 | Asp | Phe | Ala | Thr | Thr 320 |
| Ile | Trp | Gln | Gln | Met 325 | Glu | Glu | Leu | Gly | | | | | | | |

(2) INFORMATION FOR SEQ ID NO:198:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 329 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:198:

- Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15
- Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30
- Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45
- Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 55 60
- Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80
- Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95
- Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln
 100 105 110
- Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125
- Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140
- Pro Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe 145 150 155 160
- Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe 165 170 175
- Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Gly Gly
 180 185 190
- Gly Ser Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln
 195 200 205
- Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp 210 215 220
- Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His 225 230 235 240

Pro Glu Glu Leu Val Leu Gly His Ser Leu Gly Ile Pro Trp Ala 245 250 255

Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu 260 265 270

Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala 275 280 285

Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln 290 295 300

Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu 305 310 315 320

Leu Gly Met Ala Pro Ala Leu Gln Pro 325

(2) INFORMATION FOR SEQ ID NO:199:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 319 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:199:

Met Ala Asn Cys Ser Asn Met Ile Asp Glu Ile Ile Thr His Leu Lys

1 10 15

Gln Pro Pro Leu Pro Leu Leu Asp Phe Asn Asn Leu Asn Gly Glu Asp 20 25 30

Gln Asp Ile Leu Met Asp Asn Asn Leu Arg Arg Pro Asn Leu Glu Ala 35 40 45

Phe Asn Arg Ala Val Lys Ser Leu Gln Asn Ala Ser Ala Ile Glu Ser 50 55 60

Ile Leu Lys Asn Leu Leu Pro Cys Leu Pro Leu Ala Thr Ala Ala Pro 65 70 75 80

Thr Arg His Pro Ile His Ile Lys Asp Gly Asp Trp Asn Glu Phe Arg 85 90 95

Arg Lys Leu Thr Phe Tyr Leu Lys Thr Leu Glu Asn Ala Gln Ala Gln 100 105 110

Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125 Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140

Pro Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe 145 150 155 160

Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe 165 170 175

Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Ser Gly
180 185 190

Gly Ser Gly Gly Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val 195 200 205

Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala 210 215 220

Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser 225 230 235 240

Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu 245 250 255

Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr 260 265 270

Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro 275 280 285

Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile 290 295 300

(2) INFORMATION FOR SEQ ID NO:200:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 322 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:200:

Met Ala Asn Cys Ser Asn Met Ile Asp Glu Ile Ile Thr His Leu Lys 1 5 10 15

Gln Pro Pro Leu Pro Leu Leu Asp Phe Asn Asn Leu Asn Gly Glu Asp

| GIN | Asp | 35 | Leu | мес | GIU | ASII | 40 | ьeu | Arg | Arg | Pro | 45 | Leu | GIU | Ата |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Phe | Asn 50 | Arg | Ala | Val | Lys | Ser 55 | Leu | Gln | Asn | Ala | Ser 60 | Ala | Ile | Glu | Ser |
| Ile 65 | Leu | Lys | Asn | Leu | Leu 70 | Pro | Cys | Leu | Pro | Leu 75 | Ala | Thr | Ala | Ala | Pro 80 |
| Thr | Arg | His | Pro | Ile 85 | Ile | Ile | Arg | Asp | Gly 90 | Asp | Trp | Asn | Glu | Phe 95 | Arg |
| Arg | Lys | Leu | Thr 100 | Phe | Tyr | Leu | Lys | Thr 105 | Leu | Glu | Asn | Ala | Gln 110 | Ala | Gln |
| Gln | Tyr | Val 115 | Glu | Gly | Gly | Gly | Gly 120 | Ser | Pro | Gly | Glu | Pro 125 | Ser | Gly | Pro |
| Ile | Ser 130 | Thr | Ile | Asn | Pro | Ser 135 | Pro | Pro | Ser | Lys | Glu 140 | Ser | His | Lys | Ser |
| Pro 145 | Asn | Met | Ala | Thr | Gln 150 | Gly | Ala | Met | Pro | Ala 155 | Phe | Ala | Ser | Ala | Phe |
| Gln | Arg | Arg | Ala | Gly 165 | Gly | Val | Leu | Val | Ala 170 | Ser | His | Leu | Gln | Ser 175 | Phe |
| Leu | Glu | Val | Ser 180 | Tyr | Arg | Val | Leu | Arg 185 | His | Leu | Ala | Gln | Pro 190 | Thr | Pro |
| Leu | Gly | Pro 195 | Ala | Ser | Ser | Leu | Pro 200 | Gln | Ser | Phe | Leu | Leu 205 | Lys | Ser | Leu |
| Glu | Gln 210 | Val | Arg | Lys | Ile | Gln 215 | Gly | Asp | Gly | Ala | Ala 220 | Leu | Gln | Glu | Lys |
| Leu 225 | Cys | Ala | Thr | Tyr | Lys 230 | Leu | Cys | His | Pro | Glu 235 | Glu | Leu | Val | Leu | Leu 240 |
| Gly | His | Ser | Leu | Gly 245 | Ile | Pro | Trp | Ala | Pro 250 | Leu | Ser | Ser | Cys | Pro 255 | Ser |
| Gln | Ala | Leu | Gln 260 | Leu | Ala | Gly | Cys | Leu 265 | Ser | Gln | Leu | His | Ser 270 | Gly | Leu |
| Phe | Leu | Tyr 275 | Gln | Gly | Leu | Leu | Gln 280 | Ala | Leu | Glu | Gly | Ile 285 | Ser | Pro | Glu |
| Leu | Gly 290 | Pro | Thr | Leu | Asp | Thr 295 | Leu | Gln | Leu | Asp | Val 300 | Ala | Asp | Phe | Ala |
| Thr | Thr | Ile | Trp | Gln | Gln | Met | Glu | Glu | Leu | Gly | Met | Ala | Pro | Ala | Leu |

Gln Pro

(2) INFORMATION FOR SEQ ID NO:201:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 319 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:201:

Met Ala Asn Cys Ser Asn Met Ile Asp Glu Ile Ile Thr His Leu Lys

1 10 15

Gln Pro Pro Leu Pro Leu Leu Asp Phe Asn Asn Leu Asn Gly Glu Asp
20 25 30

Gln Asp Ile Leu Met Glu Asn Asn Leu Arg Arg Pro Asn Leu Glu Ala 35 40 45

Phe Asn Arg Ala Val Lys Ser Leu Gln Asn Ala Ser Ala Ile Glu Ser 50 55 60

Ile Leu Lys Asn Leu Leu Pro Cys Leu Pro Leu Ala Thr Ala Ala Pro 65 70 75 80

Thr Arg His Pro Ile Ile Ile Arg Asp Gly Asp Trp Asn Glu Phe Arg 85 90 95

Arg Lys Leu Thr Phe Tyr Leu Lys Thr Leu Glu Asn Ala Gln Ala Gln 100 105 110

Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125

Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140

Pro Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe 145 150 155 160

Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe 165 170 175

Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Ser Gly
180 185 190

Gly Ser Gly Gly Ser Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val 195 200 205

Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala 210 215 220

Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser 230 235

Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu 245 250

Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr

Gln Gly Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro 280

Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile 300

Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro

(2) INFORMATION FOR SEQ ID NO:202:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 322 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:202:

Met Ala Asn Cys Ser Asn Met Ile Asp Glu Ile Ile Thr His Leu Lys

Gln Pro Pro Leu Pro Leu Leu Asp Phe Asn Asn Leu Asn Gly Glu Asp 20 25

Gln Asp Ile Leu Met Asp Asn Asn Leu Arg Arg Pro Asn Leu Glu Ala 40

Phe Asn Arg Ala Val Lys Ser Leu Gln Asn Ala Ser Ala Ile Glu Ser 50 55

60

Ile Leu Lys Asn Leu Leu Pro Cys Leu Pro Leu Ala Thr Ala Ala Pro 70 7.5

Thr Arg His Pro Ile His Ile Lys Asp Gly Asp Trp Asn Glu Phe Arg 85 90

Arg Lys Leu Thr Phe Tyr Leu Lys Thr Leu Glu Asn Ala Gln Ala Gln 100 105

Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro

115 120 125

Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 135 Pro Asn Met Ala Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe 150 155 Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe 165 170 Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Thr Pro 180 185 Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu 200 Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 215 220 Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 250 Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 260 265 Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 280 Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 295 300 Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu

315

320

Gln Pro

305

(2) INFORMATION FOR SEQ ID NO:203:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids

310

- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:203:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 90 Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 120 Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 135 Asn Met Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val 150 Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala 165 170 Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala 180 185 Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln 200 Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu Gln Ser Leu Leu 210 215 Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg 250 Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly 260 Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu 280 Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln 290 295 300

(2) INFORMATION FOR SEQ ID NO: 204:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:204:

- Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg

 1 10 15
- Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30
- Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45
- Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 60
- Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80
- Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu
 85 90 95
- Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110
- Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125
- Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140
- Asn Met Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 145 150 155 160
- Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 165 170 175
- Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
 180 185 190
- Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
 195 200 205

Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 210 215 220

Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 225 230 235 240

Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 245 250 255

Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Met Ala 260 265 270

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 275 280 285

Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 290 295 300

His Pro 305

(2) INFORMATION FOR SEQ ID NO:205:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:205:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln

100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys 145 150 155 160

Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr 165 170 175

Leu Leu Glu Gly Val Met Ala Arg Gly Gln Leu Gly Pro Thr
180 185 190

Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu 195 200 205

Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly 210 215 220

Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln 225 230 235 240

His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser 245 250 255

Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Met Ala Ser Pro Ala Pro 260 265 270

Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro 290 295 300

Thr Pro

(2) INFORMATION FOR SEQ ID NO:206:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:206:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

5

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu 145 150 155 160

Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu 165 170 175

Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser 180 185 190

Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu 195 200 205

Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala 210 215 220

His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg 225 230 235 240

Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val 245 250 255

Arg Glu Phe Gly Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp 260 265 270

Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser 275 280 285

Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu 290 295 300

Leu Pro

(2) INFORMATION FOR SEQ ID NO:207:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:207:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg
1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr 145 150 155 160

Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Leu Glu Gly Val 165 170 175

Met Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu 180 185 190

Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu Gln Ser 195 200 205

Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys

210 215 220

Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys 225 230 235 240

Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu 245 250 255

Phe Gly Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg 260 265 270

Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu 275 280 285

Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro 290 295 300

Ala Val

(2) INFORMATION FOR SEQ ID NO:208:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:208:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val $20 \\ 25 \\ 30$

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp 145 150 155 160

Ile Leu Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg 165 170 175

Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser 180 185 190

Gly Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr 195 200 205

Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala 210 215 220

Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu 225 230 235 240

Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn 245 250 255

Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys 260 265 270

Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro 275 280 285

Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe 290 295 300

Ser Leu 305

(2) INFORMATION FOR SEQ ID NO:209:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:209:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 90 Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 105 Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 120 Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 Asn Met Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln 165 170 Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile 185 Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met 200 Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Met 210 Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu 230 235 Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu 250 Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser 260 Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile 280 Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly 295

(2) INFORMATION FOR SEQ ID NO:210:

Gln Leu 305

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:210:
- Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg

 1 10 15
- Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30
- Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45
- Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60
- Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80
- Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95
- Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110
- Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125
- Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140
- Asn Met Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys 145 150 155 160
- Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys 165 170 175
- Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu 180 185 190
- Phe Gly Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg 195 200 205
- Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu 210 215 220
- Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro

Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr 245 250 255

Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val
260 265 270

Met Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu 275 280 285

Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu Gln Ser 290 295 300

Leu Leu 305

(2) INFORMATION FOR SEQ ID NO:211:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:211:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro

130 135 140

Asn Met Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu 145 150 155 160

Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val 165 170 175

Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Met Ala Ser 180 185 190

Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg 195 200 205

Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His 210 215 220

Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly 225 230 235 240

Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly
245 250 255

Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu 260 265 270

Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val 275 280 285

Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro 290 295 300

Pro Gln 305

(2) INFORMATION FOR SEQ ID NO:212:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:212:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 $$ 5 $$ 10 $$ 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe

35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 55 Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 90 Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 105 100 Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 120 Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 135 Asn Met Ala His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His 145 150 Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr 170 Leu Cys Val Arg Glu Phe Gly Gly Asn Met Ala Ser Pro Ala Pro Pro 180 185 Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val 200 Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr 215 220 Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr 225 230 Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu 245 250 Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg 295 300

Thr Thr 305

(2) INFORMATION FOR SEQ ID NO:213:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 306 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:213:
- Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg
 1 5 10 15
- Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30
- Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45
- Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60
- Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80
- Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95
- Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110
- Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125
- Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140
- Asn Met Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg 145 150 155 160
- Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val 165 170 175
- Arg Glu Phe Gly Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp 180 185 190
- Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser 195 200 205
- Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu 210 215 220
- Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu 225 230 235 240
- Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Leu Glu

245 250 255

Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser 260 265 270

Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Gly Ala Leu 275 280 285

Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala 290 295 300

His Lys 305

(2) INFORMATION FOR SEQ ID NO:214:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 306 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:214:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu
85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val

145 150 155 160

Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe 165 170 175

Gly Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val 180 185 190

Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser 195 200 205

Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala 210 215 220

Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys 225 230 235 240

Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met 245 250 255

Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly 260 265 270

Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu Gln Ser Leu 275 280 285

Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp 290 295 300

Pro Asn 305

(2) INFORMATION FOR SEQ ID NO:215:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:215:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile

| Leu 65 | Arg | Asn | Leu | Gln | Pro 70 | Cys | Leu | Pro | Ser | Ala 75 | Thr | Ala | Ala | Pro | Ser 80 |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Arg | His | Pro | Ile | Ile 85 | Ile | Lys | Ala | Gly | Asp 90 | Trp | Gln | Glu | Phe | Arg 95 | Glu |
| Lys | Leu | Thr | Phe 100 | Tyr | Leu | Val | Thr | Leu 105 | Glu | Gln | Ala | Gln | Glu 110 | Gln | Gln |
| Tyr | Val | Glu 115 | Gly | Gly | Gly | Gly | Ser 120 | Pro | Gly | Glu | Pro | Ser 125 | Gly | Pro | Ile |
| Ser | Thr 130 | Ile | Asn | Pro | Ser | Pro 135 | Pro | Ser | Lys | Glu | Ser 140 | His | Lys | Ser | Pro |
| Asn 145 | Met | Glu | Val | His | Prc 150 | Leu | Pro | Thr | Pro | Val 155 | Leu | Leu | Pro | Ala | Val 160 |
| Asp | Phe | Ser | Leu | Gly 165 | Glu | Trp | Lys | Thr | Gln 170 | Met | Glu | Glu | Thr | Lys 175 | Ala |
| Gln | Asp | Ile | Leu 180 | Gly | Ala | Val | Thr | Leu 185 | Leu | Leu | Glu | Gly | Val 190 | Met | Ala |
| Ala | Arg | Gly 195 | Gln | Leu | Gly | Pro | Thr 200 | Cys | Leu | Ser | Ser | Leu 205 | Leu | Gly | Gln |
| Leu | Ser 210 | Gly | Gln | Val | Arg | Leu 215 | Leu | Leu | Gly | Ala | Leu 220 | Gln | Ser | Leu | Leu |
| Gly 225 | Thr | Gln | Leu | Pro | Pro 230 | Gln | Gly | Arg | Thr | Thr 235 | Ala | His | Lys | Asp | Pro 240 |
| Asn | Ala | Ile | Phe | Leu 245 | Ser | Phe | Gln | His | Leu 250 | Leu | Arg | Gly | Lys | Val 255 | Arg |
| Phe | Leu | Met | Leu 260 | Val | Gly | Gly | Ser | Thr 265 | Leu | Cys | Val | Arg | Glu 270 | Phe | Gly |
| Asn | Met | Ala 275 | Ser | Pro | Ala | Pro | Pro 280 | Ala | Cys | Asp | Leu | Arg 285 | Val | Leu | Ser |
| Lys | Leu 290 | Leu | Arg | Asp | Ser | His 295 | Val | Leu | His | Ser | Arg 300 | Leu | Ser | Gln | Cys |
| Pro 305 | | | | | | | | | | | | | | | |

(2) INFORMATION FOR SEQ ID NO:216:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids

 - (B) TYPE: amino acid
 (C) STRANDEDNESS: unknown

(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

| (xi) |) SEQUENCE DESCRIPTION: SEQ ID NO:216: | | | | | | | | | | | | | | |
|------------|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ala 1 | Asn | Cys | Ser | Ile 5 | Met | Ile | Asp | Glu | Ile 10 | Ile | His | His | Leu | Lys 15 | Arg |
| Pro | Pro | Ala | Pro 20 | Leu | Leu | Asp | Pro | Asn 25 | Asn | Leu | Asn | Asp | Glu 30 | Asp | Val |
| Ser | Ile | Leu 35 | Met | Asp | Arg | Asn | Leu 40 | Arg | Leu | Pro | Asn | Leu 45 | Glu | Ser | Phe |
| Val | Arg 50 | Ala | Val | Lys | Asn | Leu 55 | Glu | Asn | Ala | Ser | Gly 60 | Ile | Glu | Ala | Ile |
| Leu 65 | Arg | Asn | Leu | Gln | Pro 70 | Cys | Leu | Pro | Ser | Ala 75 | Thr | Ala | Ala | Pro | Ser 80 |
| Arg | His | Pro | Ile | Ile 85 | Ile | Lys | Ala | Gly | Asp 90 | Trp | Gln | Glu | Phe | Arg 95 | Glu |
| Lys | Leu | Thr | Phe 100 | Tyr | Leu | Val | Thr | Leu 105 | Glu | Gln | Ala | Gln | Glu 110 | Gln | Gln |
| Tyr | Val | Glu 115 | Gly | Gly | Gly | Gly | Ser 120 | Pro | Gly | Glu | Pro | Ser 125 | Gly | Pro | Ile |
| Ser | Thr 130 | Ile | Asn | Pro | Ser | Pro 135 | Pro | Ser | Lys | Glu | Ser 140 | His | Lys | Ser | Pro |
| Asn 145 | Met | Leu | Pro | Thr | Pro 150 | Val | Leu | Leu | Pro | Ala 155 | Val | Asp | Phe | Ser | Leu 160 |
| Gly | Glu | Trp | Lys | Thr 165 | Gln | Met | Glu | Glu | Thr 170 | Lys | Ala | Gln | Asp | Ile 175 | Leu |
| Gly | Ala | Val | Thr 180 | Leu | Leu | Leu | Glu | Gly 185 | Val | Met | Ala | Ala | Arg 190 | Gly | Gln |
| Leu | Gly | Pro 195 | Thr | Cys | Leu | Ser | Ser 200 | Leu | Leu | Gly | Gln | Leu 205 | Ser | Gly | Gln |
| Val | Arg 210 | Leu | Leu | Leu | Gly | Ala 215 | Leu | Gln | Ser | Leu | Leu 220 | Gly | Thr | Gln | Leu |
| Pro 225 | Pro | Gln | Gly | Arg | Thr 230 | Thr | Ala | His | Lys | Asp 235 | Pro | Asn | Ala | Ile | Phe 240 |
| Leu | Ser | Phe | Gln | His 245 | Leu | Leu | Arg | Gly | Lys 250 | Val | Arg | Phe | Leu | Met 255 | Leu |

Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Asn Met Ala Ser 260 265 270

Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg 275 280 285

Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His 290 295 300

Pro 305

(2) INFORMATION FOR SEQ ID NO:217:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:217:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys 145 150 155 160 Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr 165 170 175

Leu Leu Glu Gly Val Met Ala Arg Gly Gln Leu Gly Pro Thr
180 185 190

Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu 195 200 205

Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly 210 215 220

Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln 225 230 235 240

His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser 245 250 255

Thr Leu Cys Val Arg Glu Phe Gly Asn Met Ala Ser Pro Ala Pro Pro 260 265 270

Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val 275 280 285

Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr 290 295 300

Pro 305

(2) INFORMATION FOR SEQ ID NO:218:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:218:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 90 Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 105 Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 120 Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 135 Asn Met Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu 155 Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu 165 170 Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser 185 Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Gly Ala Leu 195 200 205 Gln Ser Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala 215 His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg 230 235 Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val 245 Arg Glu Phe Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu 260 265 Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg 275 280 285 Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu 295 300 Pro 305

(2) INFORMATION FOR SEQ ID NO:219:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:219:

- Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15
- Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30
- Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45
- Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60
- Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80
- Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95
- Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110
- Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125
- Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140
- Asn Met Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr 145 150 155 160
- Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val 165 170 175
- Met Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu 180 185 190
- Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu Gln Ser 195 200 205
- Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys 210 215 220
- Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys 225 230 235 240
- Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu 245 250 255
- Phe Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val260 265 270

Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser 275 280 285

Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala 290 295 300

Val 305

(2) INFORMATION FOR SEQ ID NO:220:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:220:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg

1 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp 145 150 155 160

Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg
165 170 175

Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser 180 185 190

Gly Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr
195 200 205

Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala 210 215 220

Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu 225 230 235 240

Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Asn Met 245 250 255

Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu 260 265 270

Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu 275 280 285

Val His Pro Leu Pro Thr Pro Val Leu Pro Ala Val Asp Phe Ser 290 295 300

Leu 305

(2) INFORMATION FOR SEQ ID NO:221:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:221:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu
85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly 145 150 155 160

Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln 165 170 175

Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile 180 185 190

Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met 195 200 205

Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Asn Met Ala 210 215 220

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 225 230 235 240

Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 245 250 255

His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 260 265 270

Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 275 280 285

Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 290 295 300

Leu 305

(2) INFORMATION FOR SEQ ID NO:222:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:222:

- Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30
- Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45
- Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60
- Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80
- Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95
- Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110
- Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125
- Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140
- Asn Met Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys 145 150 155 160
- Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys 165 170 175
- Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu 180 185 190
- Phe Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val 195 200 205
- Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser 210 215 220
- Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala 225 230 235 240
- Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys 245 250 255
- Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met 260 265 270
- Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly

275 280 285

Gln Leu Ser Gly Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu 290 295 300

Leu 305

(2) INFORMATION FOR SEQ ID NO:223:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:223:
- Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg

 1 10 15
- Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30
- Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45
- Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60
- Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80
- Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95
- Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110
- Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125
- Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140
- Asn Met Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu 145 150 155 160
- Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val 165 170 175
- Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Asn Met Ala Ser Pro

180 185 190

Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp 195 200 205

Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro 210 215 220

Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu 225 230 235 240

Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala 245 250 255

Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly 260 265 270

Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg 275 280 285

Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro 290 295 300

Gln 305

(2) INFORMATION FOR SEQ ID NO:224:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:224:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu

90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 120 Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 135 Asn Met Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu 145 150 155 Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val 165 170 Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Asn Met Ala Ser Pro 185 Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro 215 Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu 225 230 235 Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly 265 Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg 275 Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro 295

Gln 305

(2) INFORMATION FOR SEQ ID NO:225:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:225:

- Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15
- Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30
- Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45
- Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60
- Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80
- Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95
- Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110
- Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125
- Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140
- Asn Met Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg 145 150 155 160
- Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val 165 170 175
- Arg Glu Phe Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu 180 185 190
- Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg 195 200 205
- Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu 210 215 220
- Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu 225 230 235 240
- Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Leu Glu Gly 245 250 255
- Val Met Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu 260 265 270
- Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Gly Ala Leu Gln 275 280 285
- Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His

290 295 300

Lys 305

(2) INFORMATION FOR SEQ ID NO:226:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 305 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:226:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg

1 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu
85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val 145 150 155 160

Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe 165 170 175

Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu

180 185 190

Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln
195 200 205

Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val 210 215 220

Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala 225 230 235 240

Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala 245 250 255

Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln 260 265 270

Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu Gln Ser Leu Leu 275 280 285

Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro 290 295 300

Asn 305

(2) INFORMATION FOR SEQ ID NO:227:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:227:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95 Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 145 150 155 160

Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 165 170 175

Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 180 185 190

Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
195 200 205

Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu 210 215 220

Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 225 230 235 240

Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 245 250 255

Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Gly Gly 260 265 270

Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser 275 280 285

Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys 290 295 300

Pro Glu Val His Pro 305

(2) INFORMATION FOR SEQ ID NO:228:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:228:

| 1 1 | ASI | Cys | ser | 5 5 | мес | ire | Asp | GIU | 11e 10 | iie | HIS | HIS | Leu | ьуs 15 | Arg |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Pro | Pro | Ala | Pro 20 | Leu | Leu | Asp | Pro | Asn 25 | Asn | Leu | Asn | Asp | Glu 30 | Asp | Val |
| Ser | Ile | Leu 35 | Met | Asp | Arg | Asn | Leu 40 | Arg | Leu | Pro | Asn | Leu 45 | Glu | Ser | Phe |
| Val | Arg 50 | Ala | Val | Lys | Asn | Leu 55 | Glu | Asn | Ala | Ser | Gly 60 | Ile | Glu | Ala | Ile |
| Leu 65 | Arg | Asn | Leu | Gln | Pro 70 | Cys | Leu | Pro | Ser | Ala 75 | Thr | Ala | Ala | Pro | Ser 80 |
| Arg | His | Pro | Ile | Ile 85 | Ile | Lys | Ala | Gly | Asp 90 | Trp | Gln | Glu | Phe | Arg 95 | Glu |
| Lys | Leu | Thr | Phe 100 | Tyr | Leu | Val | Thr | Leu 105 | Glu | Gln | Ala | Gln | Glu 110 | Gln | Gln |
| Tyr | Val | Glu 115 | Gly | Gly | Gly | Gly | Ser 120 | Pro | Gly | Glu | Pro | Ser 125 | Gly | Pro | Ile |
| Ser | Thr 130 | Ile | Asn | Pro | Ser | Pro 135 | Pro | Ser | Lys | Glu | Ser 140 | His | Lys | Ser | Pro |
| Asn 145 | Met | Leu | Pro | Thr | Pro 150 | Val | Leu | Leu | Pro | Ala 155 | Val | Asp | Phe | Ser | Leu 160 |
| Gly | Glu | Trp | Lys | Thr 165 | Gln | Met | Glu | Glu | Thr 170 | Lys | Ala | Gln | Asp | Ile 175 | Leu |
| Gly | Ala | Val | Thr 180 | Leu | Leu | Leu | Glu | Gly 185 | Val | Met | Ala | Ala | Arg 190 | Gly | Gln |
| Leu | Gly | Pro 195 | Thr | Cys | Leu | Ser | Ser 200 | Leu | Leu | Gly | Gln | Leu 205 | Ser | Gly | Gln |
| Val | Arg 210 | Leu | Leu | Leu | Gly | Ala 215 | Leu | Gln | Ser | Leu | Leu 220 | Gly | Thr | Gln | Leu |
| Pro 225 | Pro | Gln | Gly | Arg | Thr 230 | Thr | Ala | His | Lys | Asp 235 | Pro | Asn | Ala | Ile | Phe 240 |
| Leu | Ser | Phe | Gln | His 245 | Leu | Leu | Arg | Gly | Lys 250 | Val | Arg | Phe | Leu | Met 255 | Leu |
| Val | Gly | Gly | Ser 260 | Thr | Leu | Cys | Val | Arg 265 | Glu | Phe | Gly | Gly | Asn 270 | Gly | Gly |
| Asn | Met | Ala 275 | Ser | Pro | Ala | Pro | Pro 280 | Ala | Cys | Asp | Leu | Arg 285 | Val | Leu | Ser |
| Lys | Leu 290 | Leu | Arg | Asp | Ser | His 295 | Val | Leu | His | Ser | Arg 300 | Leu | Ser | Gln | Cys |

Pro Glu Val His Pro 305

(2) INFORMATION FOR SEQ ID NO:229:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:229:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg

1 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys 145 150 155 160

Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr 165 170 175

Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr 180 185 190

Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu 195 200 205 Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly 210 215 220

Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln 225 230 235 240

His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser 245 250 255

Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Gly Gly Asn Met Ala Ser 260 265 270

Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg 275 280 285

Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His 290 295 300

Pro Leu Pro Thr Pro 305

(2) INFORMATION FOR SEQ ID NO:230:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:230:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu 145 150 155 160

Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu 165 170 175

Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser 180 185 190

Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu 195 200 205

Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala 210 215 220

His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg 225 230 235 240

Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val 245 250 255

Arg Glu Phe Gly Gly Asn Gly Gly Asn Met Ala Ser Pro Ala Pro Pro 260 265 270

Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val 275 280 285

Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr 290 295 300

Pro Val Leu Leu Pro 305

(2) INFORMATION FOR SEQ ID NO:231:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:231:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15 Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr 145 150 155 160

Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val 165 170 175

Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu 180 185 190

Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu Gln Ser 195 200 205

Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys 210 215 220

Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys 235 230 235

Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu 245 250 255

Phe Gly Gly Asn Gly Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys 260 265 270

Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His 275 280 285

Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val 290 295 300

Leu Leu Pro Ala Val 305

(2) INFORMATION FOR SEQ ID NO:232:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:232:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg

1 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135

Asn Met Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp 145 150 155 160

Ile Leu Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Arg
165 170 175

Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser 180 185 190

Gly Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr 195 200 205

Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala 210 215 220

Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu 225 230 235 240

Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn 245 250 255

Gly Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val 260 265 270

Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser 275 280 285

Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala 290 295 300

Val Asp Phe Ser Leu 305

(2) INFORMATION FOR SEQ ID NO:233:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:233:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly 145 150 155 160

Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln 165 170 175

Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile 180 185 190

Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met 195 200 205

Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Gly 210 215 220

Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu 225 230 235 240

Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln 245 250 255

Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val 260 265 270

Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala 275 280 285

Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala 290 295 300

Ala Arg Gly Gln Leu 305

(2) INFORMATION FOR SEQ ID NO:234:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:234:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg
1 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 135 Asn Met Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys 150 155 145 Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys 165 170 Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu 185 Phe Gly Gly Asn Gly Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val 225 230 235 Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met 250 Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Leu 265 Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser 275 280 Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Gly Ala 295 300 Leu Gln Ser Leu Leu 305

(2) INFORMATION FOR SEQ ID NO:235:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:235:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg
1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

Asn Met Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu 145 150 155 160

Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val 165 170 175

Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Gly Gly Asn 180 185 190

Met Ala Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys 195 200 205

Leu Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro 210 215 220

Glu Val His Pro Leu Pro Thr Pro Val Leu Pro Ala Val Asp Phe

Ser Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp $245 \hspace{1.5cm} 250 \hspace{1.5cm} 255$

Ile Leu Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Arg 260 265 270

Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser 275 280 285

Gly Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr 290 295 300

Gln Leu Pro Pro Gln 305

(2) INFORMATION FOR SEQ ID NO: 236:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:236:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro

130 135 140

Asn Met Ala His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His 145 150 155 160

Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr 165 170 175

Leu Cys Val Arg Glu Phe Gly Gly Asn Gly Gly Asn Met Ala Ser Pro 180 185 190

Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp 195 200 205

Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro 210 215 220

Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly Glu 225 230 235 240

Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala 245 250 255

Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly 260 265 270

Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg 275 280 285

Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro 290 295 300

Gln Gly Arg Thr Thr 305

(2) INFORMATION FOR SEQ ID NO:237:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 309 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:237:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg 1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 90 Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 120 Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 135 Asn Met Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg 145 150 155 Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe Gly Gly Asn Gly Gly Asn Met Ala Ser Pro Ala Pro Pro 180 185 Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val 200 Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr

40

45

220

235

Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu 245 250 255

Pro Val Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr

215

230

Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys 260 265 270

Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Leu 275 280 285

Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg 290 295 300

Thr Thr Ala His Lys 305

225

35

(2) INFORMATION FOR SEQ ID NO:238:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 309 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:238:

- Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg

 1 10 15
- Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30
- Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45
- Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60
- Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80
- Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95
- Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110
- Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125
- Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140
- Asn Met Ala Ile Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val 145 150 155 160
- Arg Phe Leu Met Leu Val Gly Gly Ser Thr Leu Cys Val Arg Glu Phe 165 170 175
- Gly Gly Asn Gly Gly Asn Met Ala Ser Pro Ala Pro Pro Ala Cys Asp 180 185 190
- Leu Arg Val Leu Ser Lys Leu Leu Arg Asp Ser His Val Leu His Ser 195 200 205
- Arg Leu Ser Gln Cys Pro Glu Val His Pro Leu Pro Thr Pro Val Leu 210 215 220
- Leu Pro Ala Val Asp Phe Ser Leu Gly Glu Trp Lys Thr Gln Met Glu 225 230 235 240

Glu Thr Lys Ala Gln Asp Ile Leu Gly Ala Val Thr Leu Leu Glu 245 250 255

Gly Val Met Ala Ala Arg Gly Gln Leu Gly Pro Thr Cys Leu Ser Ser 260 265 270

Leu Leu Gly Gln Leu Ser Gly Gln Val Arg Leu Leu Leu Gly Ala Leu 275 280 285

Gln Ser Leu Leu Gly Thr Gln Leu Pro Pro Gln Gly Arg Thr Thr Ala 290 295 300

His Lys Asp Pro Asn 305

(2) INFORMATION FOR SEQ ID NO:239:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 302 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:239:

Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys Arg
1 5 10 15

Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp Val 20 25 30

Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser Phe 35 40 45

Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile 50 55 60

Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser 65 70 75 80

Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu 85 90 95

Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln 100 105 110

Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro Ile 115 120 125

Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro 130 135 140

| | Asn 145 | Met | Asp | Pro | Asn | Ala 150 | Ile | Phe | Leu | Ser | Phe 155 | Gln | His | Leu | Leu | Arg 160 | |
|--|------------|-------------------|------------|------------------------|------------------------|------------------------|------------------------|------------|------------|------------|------------|---------------|------------|------------|------------|------------|----|
| | Gly | Lys | Val | Arg | Phe 165 | Leu | Met | Leu | Val | Gly 170 | Gly | Ser | Thr | Leu | Cys 175 | Val | |
| | Arg | Glu | Phe | Gly 180 | Gly | Asn | Met | Ala | Ser 185 | Pro | Ala | Pro | Pro | Ala 190 | Cys | Asp | |
| | Leu | Arg | Val 195 | Leu | Ser | Lys | Leu | Leu 200 | Arg | Asp | Ser | His | Val 205 | Leu | His | Ser | |
| | Arg | Leu 210 | Ser | Gln | Cys | Pro | Glu 215 | Val | His | Pro | Leu | Pro 220 | Thr | Pro | Val | Leu | |
| | Leu 225 | Pro | Ala | Val | Asp | Phe 230 | Ser | Leu | Gly | Glu | Trp 235 | Lys | Thr | Gln | Met | Glu 240 | |
| | Glu | Thr | Lys | Ala | Gln 245 | Asp | Ile | Leu | Gly | Ala 250 | Val | Thr | Leu | Leu | Leu 255 | Glu | |
| | Gly | Val | Met | Ala 260 | Ala | Arg | Gly | Gln | Leu 265 | Gly | Pro | Thr | Cys | Leu 270 | Ser | Ser | |
| | Leu | Leu | Gly 275 | Gln | Leu | Ser | Gly | Gln 280 | Val | Arg | Leu | Leu | Leu 285 | Gly | Ala | Leu | |
| | Gln | Ser 290 | Leu | Leu | Gly | Thr | Gln 295 | Gly | Arg | Thr | Thr | Ala 300 | His | Lys | | | |
| (2) | INFO | RMAT | ION I | FOR S | SEQ I | ID NO | 240 |): | | | | | | | | | |
| | (i) | (A) (B) (C) | LEI TYI | NGTH PE: 1 RANDI | ARACT : 83 hucle EDNES | base eic a SS: s | e pai acid singl | irs | | | | | | | | | |
| | (ii) | | | | PE: 0 | | | | | | 2" | | | | | | |
| | (xi) | SEQU | JENCI | E DES | SCRIE | 1OIT9 | N: SE | EQ II | O NO: | 240: | : | | ٠ | | | | |
| AATI | CCGT | CG TA | AAAC: | rgaco | C TTC | CTATO | CTGA | AAA | CCTT | GA C | SAACO | GCGC <i>I</i> | AG GO | CTCAA | ACAGI | ľ | 60 |
| ACGI | TAGAGO | GG CC | GTG | GAGG | C TCC | | | | | | | | | | | | 83 |
| (2) | INFO | RMATI | ON I | FOR S | SEQ] | D NO |):241 | l: | | | | | | | | | |
| (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 83 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear | | | | | | | | | | | | | | | | | |

| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "synthetic"</pre> | |
|-----|--|----|
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:241: | |
| CCG | GGGAGCC TCCACCGCCC TCTACGTACT GTTGAGCCTG CGCGTTCTCC AAGGTTTTCA | 60 |
| GAT | AGAAGGT CAGTTTACGA CGG | 83 |
| (2) | INFORMATION FOR SEQ ID NO:242: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 8 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: unknown (D) TOPOLOGY: unknown | |
| | (ii) MOLECULE TYPE: peptide | |
| | | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:242: | |
| | Gly Gly Gly Gly Gly Ser 1 5 | |
| (2) | INFORMATION FOR SEQ ID NO:243: | |
| | (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 12 amino acids(B) TYPE: amino acid(C) STRANDEDNESS: unknown(D) TOPOLOGY: unknown | |
| | (ii) MOLECULE TYPE: peptide | |
| | | |
| | (xi) SEQUENCE DESCRIPTION: SEQ ID NO:243: | |
| | Gly Gly Gly Ser Gly Gly Ser Gly Gly Ser 1 5 10 | |
| (2) | INFORMATION FOR SEQ ID NO:244: | |
| | (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 7 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: unknown (D) TOPOLOGY: unknown | |

- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:244:

Ser Gly Gly Ser Gly Gly Ser 1 5

- (2) INFORMATION FOR SEQ ID NO:245:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 6 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:245:

Glu Phe Gly Asn Met Ala

- (2) INFORMATION FOR SEQ ID NO:246:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 7 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:246:

- (2) INFORMATION FOR SEQ ID NO:247:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 10 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: peptide

| Glu Phe Gly Gly Asn Gly Gly Asn Met Ala 1 5 10 | | | | | | | | |
|--|-----|--|--|--|--|--|--|--|
| (2) INFORMATION FOR SEQ ID NO:248: | | | | | | | | |
| (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 7 amino acids (B) TYPE: amino acid (C) STRANDEDNESS: unknown (D) TOPOLOGY: unknown | | | | | | | | |
| (ii) MOLECULE TYPE: peptide | | | | | | | | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:248: | | | | | | | | |
| Gly Gly Ser Asp Met Ala Gly 1 5 | | | | | | | | |
| (2) INFORMATION FOR SEQ ID NO:249: | | | | | | | | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 459 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: unknown(D) TOPOLOGY: unknown | | | | | | | | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "SYNTHETIC"</pre> | | | | | | | | |
| (with groupings precent parton, group No. 240 | | | | | | | | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:249: | 60 | | | | | | | |
| TCTCCCGCTC CGCCTGCTTG TGACCTCCGA GTCCTCAGTA AACTGCTTCG TGACTCCCAT | 60 | | | | | | | |
| GTCCTTCACA GCAGACTGAG CCAGTGCCCA GAGGTTCACC CTTTGCCTAC ACCTGTCCTG | 120 | | | | | | | |
| CTGCCTGCTG TGGACTTTAG CTTGGGAGAA TGGAAAACCC AGATGGAGGA GACCAAGGCA | 180 | | | | | | | |
| CAGGACATTC TGGGAGCAGT GACCCTTCTG CTGGAGGGAG TGATGGCAGC ACGGGGACAA | 240 | | | | | | | |
| CTGGGACCCA CTTGCCTCTC ATCCCTCCTG GGGCAGCTTT CTGGACAGGT CCGTCTCCTC | 300 | | | | | | | |
| CTTGGGGCCC TGCAGAGCCT CCTTGGAACC CAGCTTCCTC CACAGGGCAG GACCACAGCT | 360 | | | | | | | |
| CACAAGGATC CCAATGCCAT CTTCCTGAGC TTCCAACACC TGCTCCGAGG AAAGGTGCGT | 420 | | | | | | | |
| TTCCTGATGC TTGTAGGAGG GTCCACCCTC TGCGTCAGG | 459 | | | | | | | |

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:247:

| (2) | INFORMATION | FOR | SEQ | ΙD | NO:250: |
|-----|-------------|-----|-----|----|---------|
|-----|-------------|-----|-----|----|---------|

| <pre>(i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 447 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: unknown (D) TOPOLOGY: unknown (ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "SYNTHETIC"</pre> | | | | | | | | |
|---|-----|--|--|--|--|--|--|--|
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:250: | | | | | | | | |
| TCTCCCGCTC CGCCTGCTTG TGACCTCCGA GTCCTCAGTA AACTGCTTCG TGACTCCCAT | 60 | | | | | | | |
| GTCCTTCACA GCAGACTGAG CCAGTGCCCA GAGGTTCACC CTTTGCCTAC ACCTGTCCTG | 120 | | | | | | | |
| CTGCCTGCTG TGGACTTTAG CTTGGGAGAA TGGAAAACCC AGATGGAGGA GACCAAGGCA | 180 | | | | | | | |
| CAGGACATTC TGGGAGCAGT GACCCTTCTG CTGGAGGGAG TGATGGCAGC ACGGGGACAA | 240 | | | | | | | |
| CTGGGACCCA CTTGCCTCTC ATCCCTCCTG GGGCAGCTTT CTGGACAGGT CCGTCTCCTC | 300 | | | | | | | |
| CTTGGGGCCC TGCAGAGCCT CCTTGGAACC CAGGGCAGGA CCACAGCTCA CAAGGATCCC | 360 | | | | | | | |
| AATGCCATCT TCCTGAGCTT CCAACACCTG CTCCGAGGAA AGGTGCGTTT CCTGATGCTT | 420 | | | | | | | |
| GTAGGAGGGT CCACCCTCTG CGTCAGG | 447 | | | | | | | |
| (2) INFORMATION FOR SEQ ID NO:251: | | | | | | | | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 459 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: unknown(D) TOPOLOGY: unknown | | | | | | | | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "SYNTHETIC"</pre> | | | | | | | | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:251: | | | | | | | | |
| TCCCCAGCGC CGCCTGCTTG TGACCTCCGA GTCCTCAGTA AACTGCTTCG TGACTCCCAT | 60 | | | | | | | |
| GTCCTTCACA GCAGACTGAG CCAGTGCCCA GAGGTTCACC CTTTGCCTAC ACCTGTCCTG | 120 | | | | | | | |
| CTGCCTGCTG TGGACTTTAG CTTGGGAGAA TGGAAAACCC AGATGGAGGA GACCAAGGCA | 180 | | | | | | | |
| CAGGACATTC TGGGAGCAGT GACCCTTCTG CTGGAGGGAG TGATGGCAGC ACGGGGACAA | 240 | | | | | | | |

| CTGGGACCCA | CTTGCCTCTC | ATCCCTCCTG | GGGCAGCTTT | CTGGACAGGT | CCGTCTCCTC | 300 |
|-------------|--------------|--------------|------------|------------|------------|-----|
| CTTGGGGCCC | TGCAGAGCCT | CCTTGGAACC | CAGCTTCCTC | CACAGGGCAG | GACCACAGCT | 360 |
| CACAAGGATC | CCAATGCCAT | CTTCCTGAGC | TTCCAACACC | TGCTCCGAGG | AAAGGTGCGT | 420 |
| TTCCTGATGC | TTGTAGGAGG | GTCCACCCTC | TGCGTCAGG | | | 459 |
| (2) INFORMA | ATION FOR SE | EQ ID NO:252 | 2: | | | |

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 153 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:252:

Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 5 10 15

Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30

His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45

Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 50 60

Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 80

Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 95

Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
100 105 110

Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125

Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140

(2) INFORMATION FOR SEQ ID NO:253:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 149 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:253:
- Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 5 10 15
- Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30
- His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45
- Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 50 55 60
- Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 80
- Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 95
- Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Gly 100 105 110
- Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu Ser Phe Gln 115 120 125
- His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val Gly Gly Ser 130 135 140

Thr Leu Cys Val Arg

- (2) INFORMATION FOR SEQ ID NO:254:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 153 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:254:
 - Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu

| | 1 | | | | 5 | | | | 10 | | | | | 15 | | |
|------|--|------------|-------------------|-------------------------|-------------------------------|-----------------------|------------------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|-----------|
| | Arg | Asp | Ser | His 20 | Val | Leu | His | Ser | Arg 25 | Leu | Ser | Gln | Cys | Pro 30 | Glu | Val |
| | His | Pro | Leu 35 | Pro | Thr | Pro | Val | Leu 40 | Leu | Pro | Ala | Val | Asp 45 | Phe | Ser | Leu |
| | Gly | Glu 50 | Trp | Lys | Thr | Gln | Met 55 | Glu | Glu | Thr | Lys | Ala 60 | Gln | Asp | Ile | Leu |
| | Gly 65 | Ala | Val | Thr | Leu | Leu 70 | Leu | Glu | Gly | Val | Met 75 | Ala | Ala | Arg | Gly | Gln 80 |
| | Leu | Gly | Pro | Thr | Cys 85 | Leu | Ser | Ser | Leu | Leu 90 | Gly | Gln | Leu | Ser | Gly 95 | Gln |
| | Val | Arg | Leu | Leu 100 | Leu | Gly | Ala | Leu | Gln 105 | Ser | Leu | Leu | Gly | Thr 110 | Gln | Leu |
| | Pro | Pro | Gln 115 | Gly | Arg | Thr | Thr | Ala 120 | His | Lys | Asp | Pro | Asn 125 | Ala | Ile | Phe |
| | Leu | Ser 130 | Phe | Gln | His | Leu | Leu 135 | Arg | Gly | Lys | Val | Arg 140 | Phe | Leu | Met | Leu |
| | Val 145 | Gly | Gly | Ser | Thr | Leu 150 | Cys | Val | Arg | | | | | | | |
| (2) | INFO | RMATI | ON E | FOR S | SEQ I | D NC | 255 | 5 : | | | | | | | | |
| | (i) | (B) (C) | LEN TYP STF | NGTH: PE: r RANDE | ARACT 64 nucle EDNES | base ic a SS: u | e pai acid ankno | rs | | | | | | | | |
| | <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "SYNTHETIC"</pre> | | | | | | | | | | | | | | | |
| | (xi) | SEQU | JENCE | E DES | CRIE | PTION | 1: SE | EQ II | O NO: | 255: | | | | | | |
| GGAT | CCAC | CA TO | SAGCO | CGCCI | GCC | CGTC | CCTG | CTCC | CTGCT | CC P | AACTO | CTG | ST CC | CGCCC | CGCC | |
| ATGG | 5 | | | | | | | | | | | | | | | |
| (2) | INFOR | RMATI | ON E | OR S | SEQ I | D NC | :256 | 5: | | | | | | | | |

60

64

(i) SEQUENCE CHARACTERISTICS:

(B) TYPE: amino acid (C) STRANDEDNESS: unknown (D) TOPOLOGY: unknown

(A) LENGTH: 153 amino acids

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 112
- (D) OTHER INFORMATION: /note= "position 112 is deleted or Leu, Ala, VAl, Ile, Pro, Phe, Trp or Met"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 113
- (D) OTHER INFORMATION: /note= "positoin 113 is deleted or Pro, Phe, Ala, Val, Leu, Ile, Trp or Met"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 114
- (D) OTHER INFORMATION: /note= "position 114 is deleted or Pro, Phe, Ala, Val, Leu, Ile, Trp or Met"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 115
- (D) OTHER INFORMATION: /note= "positon 115 is deleted or Gln, Gly, Ser, Thr, Tyr, or Asn"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:256:

- Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu 1 5 10 15
- Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
 20 25 30
- His Pro Leu Pro Thr Pro Val Leu Pro Ala Val Asp Phe Ser Leu 35 40 45
- Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 50 55 60
- Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 80
- Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
 85 90 95
- Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Xaa 100 105 110
- Xaa Xaa Xaa Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125
- Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140

| Val Gly Gly Ser Thr Leu Cys Val Arg 145 150 | |
|---|-----|
| (2) INFORMATION FOR SEQ ID NO:257: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 464 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: unknown(D) TOPOLOGY: unknown | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "SYNTHETIC"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:257: | |
| CCATGGCTAA CTGCTCTATA ATGATCGATG AAATTATACA TCACTTAAAG AGACCACCTG | 60 |
| CACCTTTGCT GGACCCGAAC AACCTCAATG ACGAAGACGT CTCTATCCTG ATGGATCGAA | 120 |
| ACCTTCGACT TCCAAACCTG GAGAGCTTCG TAAGGGCTGT CAAGAACTTA GAAAATGCAT | 180 |
| CAGGTATTGA GGCAATTCTT CGTAATCTCC AACCATGTCT GCCCTCTGCC ACGGCCGCAC | 240 |
| CCTCTCGACA TCCAATCATC ATCAAGGCAG GTGACTGGCA AGAATTCCGG GAAAAACTGA | 300 |
| CGTTCTATCT GGTTACCCTT GAGCAAGCGC AGGAACAACA GTACGTAGAG GGCGGTGGAG | 360 |
| GCTCCCCGGG TGAACCGTCT GGTCCAATCT CTACTATCAA CCCGTCTCCT CCGTCTAAAG | 420 |
| AATCTCATAA ATCTCCAAAC ATGTAAGGTA CCGCATGCAA GCTT | 464 |
| (2) INFORMATION FOR SEQ ID NO:258: | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 100 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: unknown(D) TOPOLOGY: unknown | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "SYNTHETIC"</pre> | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:258: | |

AAAACAAGAA GAAAGGCGAT AAAAAGGTTG TGGTAAGAGA AATGGATAAA AAGGGGTCGG 60

100

(2) INFORMATION FOR SEQ ID NO:259:

GGAAGGAAGG TGGGAGTTAA AAAAGAGGAA GTAGGTCAAG

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 11808 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:259:

| ACGTACTCCA | TGGCTAACTG | CTCTATAATG | ATCGATGAAA | TTATACATCA | CTTAAAGAGA | 60 |
|------------|------------|------------|------------|------------|------------|------|
| CCACCTGCAC | CTTTGCTGGA | CCCGAACAAC | CTCAATGACG | AAGACGTCTC | TATCCTGATG | 120 |
| GATCGAAACC | TTCGACTTCC | AAACCTGGAG | AGCTTCGTAA | GGGCTGTCAA | GAACTTAGAA | 180 |
| AATGCATCAG | GTATTGAGGC | AATTCTTCGT | AATCTCCAAC | CATGTCTGCC | CTCTGCCACG | 240 |
| GCCGCACCCT | CTCGACATCC | AATCATCATC | AAGGCAGGTG | ACTGGCAAGA | ATTCCGGGAA | 300 |
| AAACTGACGT | TCTATCTGGT | TACCCTTGAG | CAAGCGCAGG | AACAACAGTA | CGTAGAGGGC | 360 |
| GGTGGAGGCT | CCCCGGGTGA | ACCGTCTGGT | CCAATCTCTA | CTATCAACCC | GTCTCCTCCG | 420 |
| TCTAAAGAAT | CTCATAAATC | TCCAAACATG | GCTTTAGGCC | CTGCCAGCTC | CCTGCCCCAG | 480 |
| AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | AGGAAGATCC | AGGGCGATGG | CGCAGCGCTC | 540 |
| CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | 600 |
| CACTCTCTGG | GCATCCCCTG | GGCTCCCCTG | AGCTCCTGCC | CCAGCCAGGC | CCTGCAGCTG | 660 |
| GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | CTTTTCCTCT | ACCAGGGGCT | CCTGCAGGCC | 720 |
| CTGGAAGGGA | TATCCCCGA | GTTGGGTCCC | ACCTTGGACA | CACTGCAGCT | GGACGTCGCC | 780 |
| GACTTTGCCA | CCACCATCTG | GCAGCAGATG | GAAGAACTGG | GAATGGCCCC | TGCCCTGCAG | 840 |
| CCCACCCAGG | GTGCCATGCC | GGCCTTCGCC | TCTGCTTTCC | AGCGCCGGGC | AGGAGGGTC | 900 |
| CTGGTTGCTA | GCCATCTGCA | GAGCTTCCTG | GAGGTGTCGT | ACCGCGTTCT | ACGCCACCTT | 960 |
| GCGCAGCCCG | ACATGGCTAC | ACCAACGTAC | TCCATGGCTA | ACTGCTCTAT | AATGATCGAT | 1020 |
| GAAATTATAC | ATCACTTAAA | GAGACCACCT | GCACCTTTGC | TGGACCCGAA | CAACCTCAAT | 1080 |
| GACGAAGACG | TCTCTATCCT | GATGGATCGA | AACCTTCGAC | TTCCAAACCT | GGAGAGCTTC | 1140 |
| GTAAGGGCTG | TCAAGAACTT | AGAAAATGCA | TCAGGTATTG | AGGCAATTCT | TCGTAATCTC | 1200 |
| CAACCATGTC | TGCCCTCTGC | CACGGCCGCA | CCCTCTCGAC | ATCCAATCAT | CATCAAGGCA | 1260 |
| GGTGACTGGC | AAGAATTCCG | GGAAAAACTG | ACGTTCTATC | TGGTTACCCT | TGAGCAAGCG | 1320 |

| CAGGAACAAC | AGTACGTAGA | GGGCGGTGGA | GGCTCCCCGG | GTGAACCGTC | TGGTCCAATC | 1380 |
|------------|------------|------------|------------|------------|------------|------|
| TCTACTATCA | ACCCGTCTCC | TCCGTCTAAA | GAATCTCATA | AATCTCCAAA | CATGGCTCAG | 1440 |
| AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | AGGAAGATCC | AGGGCGATGG | CGCAGCGCTC | 1500 |
| CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | 1560 |
| CACTCTCTGG | GCATCCCCTG | GGCTCCCCTG | AGCTCCTGCC | CCAGCCAGGC | CCTGCAGCTG | 1620 |
| GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | CTTTTCCTCT | ACCAGGGGCT | CCTGCAGGCC | 1680 |
| CTGGAAGGGA | TATCCCCGA | GTTGGGTCCC | ACCTTGGACA | CACTGCAGCT | GGACGTCGCC | 1740 |
| GACTTTGCCA | CCACCATCTG | GCAGCAGATG | GAAGAACTGG | GAATGGCCCC | TGCCCTGCAG | 1800 |
| CCCACCCAGG | GTGCCATGCC | GGCCTTCGCC | TCTGCTTTCC | AGCGCCGGGC | AGGAGGGGTC | 1860 |
| CTGGTTGCTA | GCCATCTGCA | GAGCTTCCTG | GAGGTGTCGT | ACCGCGTTCT | ACGCCACCTT | 1920 |
| GCGCAGCCCG | ACATGGCTAC | ACCATTAGGC | CCTGCCAGCT | CCCTGCCCAC | GTACTCCATG | 1980 |
| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 2040 |
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | TCGAAACCTT | 2100 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 2160 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 2220 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 2280 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 2340 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 2400 |
| CATAAATCTC | CAAACATGGC | TTTCCTGCTC | AAGTCTTTAG | AGCAAGTGAG | GAAGATCCAG | 2460 |
| GGCGATGGCG | CAGCGCTCCA | GGAGAAGCTG | TGTGCCACCT | ACAAGCTGTG | CCACCCGAG | 2520 |
| GAGCTGGTGC | TGCTCGGACA | CTCTCTGGGC | ATCCCCTGGG | CTCCCCTGAG | CTCCTGCCCC | 2580 |
| AGCCAGGCCC | TGCAGCTGGC | AGGCTGCTTG | AGCCAACTCC | ATAGCGGCCT | TTTCCTCTAC | 2640 |
| CAGGGGCTCC | TGCAGGCCCT | GGAAGGGATA | TCCCCGAGT | TGGGTCCCAC | CTTGGACACA | 2700 |
| CTGCAGCTGG | ACGTCGCCGA | CTTTGCCACC | ACCATCTGGC | AGCAGATGGA | AGAACTGGGA | 2760 |
| ATGGCCCCTG | CCCTGCAGCC | CACCCAGGGT | GCCATGCCGG | CCTTCGCCTC | TGCTTTCCAG | 2820 |
| CGCCGGGCAG | GAGGGGTCCT | GGTTGCTAGC | CATCTGCAGA | GCTTCCTGGA | GGTGTCGTAC | 2880 |
| CGCGTTCTAC | GCCACCTTGC | GCAGCCCGAC | ATGGCTACAC | CATTAGGCCC | TGCCAGCTCC | 2940 |
| CTGCCCCAGA | GCACGTACTC | CATGGCTAAC | TGCTCTATAA | TGATCGATGA | AATTATACAT | 3000 |

| CACTTAAAGA | GACCACCTGC | ACCTTTGCTG | GACCCGAACA | ACCTCAATGA | CGAAGACGTC | 3060 |
|------------|------------|------------|------------|------------|------------|------|
| TCTATCCTGA | TGGATCGAAA | CCTTCGACTT | CCAAACCTGG | AGAGCTTCGT | AAGGGCTGTC | 3120 |
| AAGAACTTAG | AAAATGCATC | AGGTATTGAG | GCAATTCTTC | GTAATCTCCA | ACCATGTCTG | 3180 |
| CCCTCTGCCA | CGGCCGCACC | CTCTCGACAT | CCAATCATCA | TCAAGGCAGG | TGACTGGCAA | 3240 |
| GAATTCCGGG | AAAAACTGAC | GTTCTATCTG | GTTACCCTTG | AGCAAGCGCA | GGAACAACAG | 3300 |
| TACGTAGAGG | GCGGTGGAGG | CTCCCGGGT | GAACCGTCTG | GTCCAATCTC | TACTATCAAC | 3360 |
| CCGTCTCCTC | CGTCTAAAGA | ATCTCATAAA | TCTCCAAACA | TGGCTGAGCA | AGTGAGGAAG | 3420 |
| ATCCAGGGCG | ATGGCGCAGC | GCTCCAGGAG | AAGCTGTGTG | CCACCTACAA | GCTGTGCCAC | 3480 |
| CCCGAGGAGC | TGGTGCTGCT | CGGACACTCT | CTGGGCATCC | CCTGGGCTCC | CCTGAGCTCC | 3540 |
| TGCCCCAGCC | AGGCCCTGCA | GCTGGCAGGC | TGCTTGAGCC | AACTCCATAG | CGGCCTTTTC | 3600 |
| CTCTACCAGG | GGCTCCTGCA | GGCCCTGGAA | GGGATATCCC | CCGAGTTGGG | TCCCACCTTG | 3660 |
| GACACACTGC | AGCTGGACGT | CGCCGACTTT | GCCACCACCA | TCTGGCAGCA | GATGGAAGAA | 3720 |
| CTGGGAATGG | CCCCTGCCCT | GCAGCCCACC | CAGGGTGCCA | TGCCGGCCTT | CGCCTCTGCT | 3780 |
| TTCCAGCGCC | GGGCAGGAGG | GGTCCTGGTT | GCTAGCCATC | TGCAGAGCTT | CCTGGAGGTG | 3840 |
| TCGTACCGCG | TTCTACGCCA | CCTTGCGCAG | CCCGACATGG | CTACACCATT | AGGCCCTGCC | 3900 |
| AGCTCCCTGC | CCCAGAGCTT | CCTGCTCAAG | TCTTTAACGT | ACTCCATGGC | TAACTGCTCT | 3960 |
| ATAATGATCG | ATGAAATTAT | ACATCACTTA | AAGAGACCAC | CTGCACCTTT | GCTGGACCCG | 4020 |
| AACAACCTCA | ATGACGAAGA | CGTCTCTATC | CTGATGGATC | GAAACCTTCG | ACTTCCAAAC | 4080 |
| CTGGAGAGCT | TCGTAAGGGC | TGTCAAGAAC | TTAGAAAATG | CATCAGGTAT | TGAGGCAATT | 4140 |
| CTTCGTAATC | TCCAACCATG | TCTGCCCTCT | GCCACGGCCG | CACCCTCTCG | ACATCCAATC | 4200 |
| ATCATCAAGG | CAGGTGACTG | GCAAGAATTC | CGGGAAAAAC | TGACGTTCTA | TCTGGTTACC | 4260 |
| CTTGAGCAAG | CGCAGGAACA | ACAGTACGTA | GAGGGCGGTG | GAGGCTCCCC | GGGTGAACCG | 4320 |
| TCTGGTCCAA | TCTCTACTAT | CAACCCGTCT | CCTCCGTCTA | AAGAATCTCA | TAAATCTCCA | 4380 |
| AACATGGCTC | TGCTCGGACA | CTCTCTGGGC | ATCCCCTGGG | CTCCCCTGAG | CTCCTGCCCC | 4440 |
| AGCCAGGCCC | TGCAGCTGGC | AGGCTGCTTG | AGCCAACTCC | ATAGCGGCCT | TTTCCTCTAC | 4500 |
| CAGGGGCTCC | TGCAGGCCCT | GGAAGGGATA | TCCCCCGAGT | TGGGTCCCAC | CTTGGACACA | 4560 |
| CTGCAGCTGG | ACGTCGCCGA | CTTTGCCACC | ACCATCTGGC | AGCAGATGGA | AGAACTGGGA | 4620 |
| ATGGCCCCTG | CCCTGCAGCC | CACCCAGGGT | GCCATGCCGG | CCTTCGCCTC | TGCTTTCCAG | 4680 |
| CGCCGGGCAG | GAGGGGTCCT | GGTTGCTAGC | CATCTGCAGA | GCTTCCTGGA | GGTGTCGTAC | 4740 |

| CGCGTTCTAC | GCCACCTTGC | GCAGCCCGAC | ATGGCTACAC | CATTAGGCCC | TGCCAGCTCC | 4800 |
|------------|------------|------------|------------|------------|------------|------|
| CTGCCCCAGA | GCTTCCTGCT | CAAGTCTTTA | GAGCAAGTGA | GGAAGATCCA | GGGCGATGGC | 4860 |
| GCAGCGCTCC | AGGAGAAGCT | GTGTGCCACC | TACAAGCTGT | GCCACCCCGA | GGAGCTGGTG | 4920 |
| ACGTACTCCA | TGGCTAACTG | CTCTATAATG | ATCGATGAAA | TTATACATCA | CTTAAAGAGA | 4980 |
| CCACCTGCAC | CTTTGCTGGA | CCCGAACAAC | CTCAATGACG | AAGACGTCTC | TATCCTGATG | 5040 |
| GATCGAAACC | TTCGACTTCC | AAACCTGGAG | AGCTTCGTAA | GGGCTGTCAA | GAACTTAGAA | 5100 |
| AATGCATCAG | GTATTGAGGC | AATTCTTCGT | AATCTCCAAC | CATGTCTGCC | CTCTGCCACG | 5160 |
| GCCGCACCCT | CTCGACATCC | AATCATCATC | AAGGCAGGTG | ACTGGCAAGA | ATTCCGGGAA | 5220 |
| AAACTGACGT | TCTATCTGGT | TACCCTTGAG | CAAGCGCAGG | AACAACAGTA | CGTAGAGGGC | 5280 |
| GGTGGAGGCT | CCCCGGGTGA | ACCGTCTGGT | CCAATCTCTA | CTATCAACCC | GTCTCCTCCG | 5340 |
| TCTAAAGAAT | CTCATAAATC | TCCAAACATG | GCTCCCCTGA | GCTCCTGCCC | CAGCCAGGCC | 5400 |
| CTGCAGCTGG | CAGGCTGCTT | GAGCCAACTC | CATAGCGGCC | TTTTCCTCTA | CCAGGGGCTC | 5460 |
| CTGCAGGCCC | TGGAAGGGAT | ATCCCCCGAG | TTGGGTCCCA | CCTTGGACAC | ACTGCAGCTG | 5520 |
| GACGTCGCCG | ACTTTGCCAC | CACCATCTGG | CAGCAGATGG | AAGAACTGGG | AATGGCCCCT | 5580 |
| GCCCTGCAGC | CCACCCAGGG | TGCCATGCCG | GCCTTCGCCT | CTGCTTTCCA | GCGCCGGGCA | 5640 |
| GGAGGGGTCC | TGGTTGCTAG | CCATCTGCAG | AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | 5700 |
| CGCCACCTTG | CGCAGCCCGA | CATGGCTACA | CCATTAGGCC | CTGCCAGCTC | CCTGCCCCAG | 5760 |
| AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | AGGAAGATCC | AGGGCGATGG | CGCAGCGCTC | 5820 |
| CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | 5880 |
| CACTCTCTGG | GCATCCCCTG | GGCTACGTAC | TCCATGGCTA | ACTGCTCTAT | AATGATCGAT | 5940 |
| GAAATTATAC | ATCACTTAAA | GAGACCACCT | GCACCTTTGC | TGGACCCGAA | CAACCTCAAT | 6000 |
| GACGAAGACG | TCTCTATCCT | GATGGATCGA | AACCTTCGAC | TTCCAAACCT | GGAGAGCTTC | 6060 |
| GTAAGGGCTG | TCAAGAACTT | AGAAAATGCA | TCAGGTATTG | AGGCAATTCT | TCGTAATCTC | 6120 |
| CAACCATGTC | TGCCCTCTGC | CACGGCCGCA | CCCTCTCGAC | ATCCAATCAT | CATCAAGGCA | 6180 |
| GGTGACTGGC | AAGAATTCCG | GGAAAAACTG | ACGTTCTATC | TGGTTACCCT | TGAGCAAGCG | 6240 |
| CAGGAACAAC | AGTACGTAGA | GGGCGGTGGA | GGCTCCCCGG | GTGAACCGTC | TGGTCCAATC | 6300 |
| TCTACTATCA | ACCCGTCTCC | TCCGTCTAAA | GAATCTCATA | AATCTCCAAA | CATGGCTCAG | 6360 |
| GCCCTGCAGC | TGGCAGGCTG | CTTGAGCCAA | CTCCATAGCG | GCCTTTTCCT | CTACCAGGGG | 6420 |

| CTCCTGCAGG | CCCTGGAAGG | GATATCCCCC | GAGTTGGGTC | CCACCTTGGA | CACACTGCAG | 6480 |
|------------|------------|--------------|------------|---------------|------------|-------|
| CTGGACGTCG | CCGACTTTGC | CACCACCATC | TGGCAGCAGA | TGGAAGAACT | GGGAATGGCC | 6540 |
| CCTGCCCTGC | AGCCCACCCA | GGGTGCCATG | CCGGCCTTCG | CCTCTGCTTT | CCAGCGCCGG | 6600 |
| GCAGGAGGGG | TCCTGGTTGC | TAGCCATCTG | CAGAGCTTCC | TGGAGGTGTC | GTACCGCGTT | 6660 |
| CTACGCCACC | TTGCGCAGCC | CGACATGGCT | ACACCATTAG | GCCCTGCCAG | CTCCCTGCCC | 6720 |
| CAGAGCTTCC | TGCTCAAGTC | TTTAGAGCAA | GTGAGGAAGA | TCCAGGGCGA | TGGCGCAGCG | 6780 |
| CTCCAGGAGA | AGCTGTGTGC | CACCTACAAG | CTGTGCCACC | CCGAGGAGCT | GGTGCTGCTC | 6840 |
| GGACACTCTC | TGGGCATCCC | CTGGGCTCCC | CTGAGCTCCT | GCCCCAGCAC | GTACTCCATG | 6900 |
| GCTAACTGCT | CTATAATGAT | CGATGAAATT | ATACATCACT | TAAAGAGACC | ACCTGCACCT | 6960 |
| TTGCTGGACC | CGAACAACCT | CAATGACGAA | GACGTCTCTA | TCCTGATGGA | TCGAAACCTT | 7020 |
| CGACTTCCAA | ACCTGGAGAG | CTTCGTAAGG | GCTGTCAAGA | ACTTAGAAAA | TGCATCAGGT | 7080 |
| ATTGAGGCAA | TTCTTCGTAA | TCTCCAACCA | TGTCTGCCCT | CTGCCACGGC | CGCACCCTCT | 7140 |
| CGACATCCAA | TCATCATCAA | GGCAGGTGAC | TGGCAAGAAT | TCCGGGAAAA | ACTGACGTTC | 7200 |
| TATCTGGTTA | CCCTTGAGCA | AGCGCAGGAA | CAACAGTACG | TAGAGGGCGG | TGGAGGCTCC | 7260 |
| CCGGGTGAAC | CGTCTGGTCC | AATCTCTACT | ATCAACCCGT | CTCCTCCGTC | TAAAGAATCT | 7320 |
| САТАААТСТС | CAAACATGGC | TCTGCAGCTG | GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | 7380 |
| | | CCTGCAGGCC | | | | 7440 |
| | | GGACGTCGCC | | | | 7500 |
| | | TGCCCTGCAG | | | | 7560 |
| | | AGGAGGGGTC | | | | 7620 |
| | | ACGCCACCTT | | | | 7680 |
| | | GAGCTTCCTG | | | | 7740 |
| | | CCAGGAGAAG | | | | 7800 |
| | | ACACTCTCTG | | | | 7860 |
| | | CATGGCTAAC | | | | 7920 |
| | | 0.1100011110 | | 1011100111011 | | 7,520 |
| CACTTAAAGA | GACCACCTGC | ACCTTTGCTG | GACCCGAACA | ACCTCAATGA | CGAAGACGTC | 7980 |
| TCTATCCTGA | TGGATCGAAA | CCTTCGACTT | CCAAACCTGG | AGAGCTTCGT | AAGGGCTGTC | 8040 |
| AAGAACTTAG | AAAATGCATC | AGGTATTGAG | GCAATTCTTC | GTAATCTCCA | ACCATGTCTG | 8100 |

| CCCTCTGCCA | CGGCCGCACC | CTCTCGACAT | CCAATCATCA | TCAAGGCAGG | TGACTGGCAA | 8160 |
|------------|------------|------------|------------|------------|------------|------|
| GAATTCCGGG | AAAAACTGAC | GTTCTATCTG | GTTACCCTTG | AGCAAGCGCA | GGAACAACAG | 8220 |
| TACGTAGAGG | GCGGTGGAGG | CTCCCGGGT | GAACCGTCTG | GTCCAATCTC | TACTATCAAC | 8280 |
| CCGTCTCCTC | CGTCTAAAGA | ATCTCATAAA | TCTCCAAACA | TGGCTCTGGC | AGGCTGCTTG | 8340 |
| AGCCAACTCC | ATAGCGGCCT | TTTCCTCTAC | CAGGGGCTCC | TGCAGGCCCT | GGAAGGGATA | 8400 |
| TCCCCCGAGT | TGGGTCCCAC | CTTGGACACA | CTGCAGCTGG | ACGTCGCCGA | CTTTGCCACC | 8460 |
| ACCATCTGGC | AGCAGATGGA | AGAACTGGGA | ATGGCCCCTG | CCCTGCAGCC | CACCCAGGGT | 8520 |
| GCCATGCCGG | CCTTCGCCTC | TGCTTTCCAG | CGCCGGGCAG | GAGGGGTCCT | GGTTGCTAGC | 8580 |
| CATCTGCAGA | GCTTCCTGGA | GGTGTCGTAC | CGCGTTCTAC | GCCACCTTGC | GCAGCCCGAC | 8640 |
| ATGGCTACAC | CATTAGGCCC | TGCCAGCTCC | CTGCCCCAGA | GCTTCCTGCT | CAAGTCTTTA | 8700 |
| GAGCAAGTGA | GGAAGATCCA | GGGCGATGGC | GCAGCGCTCC | AGGAGAAGCT | GTGTGCCACC | 8760 |
| TACAAGCTGT | GCCACCCGA | GGAGCTGGTG | CTGCTCGGAC | ACTCTCTGGG | CATCCCCTGG | 8820 |
| GCTCCCCTGA | GCTCCTGCCC | CAGCCAGGCC | CTGCAGACGT | ACTCCATGGC | TAACTGCTCT | 8880 |
| ATAATGATCG | ATGAAATTAT | ACATCACTTA | AAGAGACCAC | CTGCACCTTT | GCTGGACCCG | 8940 |
| AACAACCTCA | ATGACGAAGA | CGTCTCTATC | CTGATGGATC | GAAACCTTCG | ACTTCCAAAC | 9000 |
| CTGGAGAGCT | TCGTAAGGGC | TGTCAAGAAC | TTAGAAAATG | CATCAGGTAT | TGAGGCAATT | 9060 |
| CTTCGTAATC | TCCAACCATG | TCTGCCCTCT | GCCACGGCCG | CACCCTCTCG | ACATCCAATC | 9120 |
| ATCATCAAGG | CAGGTGACTG | GCAAGAATTC | CGGGAAAAAC | TGACGTTCTA | TCTGGTTACC | 9180 |
| CTTGAGCAAG | CGCAGGAACA | ACAGTACGTA | GAGGGCGGTG | GAGGCTCCCC | GGGTGAACCG | 9240 |
| TCTGGTCCAA | TCTCTACTAT | CAACCCGTCT | CCTCCGTCTA | AAGAATCTCA | TAAATCTCCA | 9300 |
| AACATGGCTG | AACTGGGAAT | GGCCCCTGCC | CTGCAGCCCA | CCCAGGGTGC | CATGCCGGCC | 9360 |
| TTCGCCTCTG | CTTTCCAGCG | CCGGGCAGGA | GGGGTCCTGG | TTGCTAGCCA | TCTGCAGAGC | 9420 |
| TTCCTGGAGG | TGTCGTACCG | CGTTCTACGC | CACCTTGCGC | AGCCCGACAT | GGCTACACCA | 9480 |
| TTAGGCCCTG | CCAGCTCCCT | GCCCCAGAGC | TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGG | 9540 |
| AAGATCCAGG | GCGATGGCGC | AGCGCTCCAG | GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | 9600 |
| CACCCGAGG | AGCTGGTGCT | GCTCGGACAC | TCTCTGGGCA | TCCCCTGGGC | TCCCCTGAGC | 9660 |
| TCCTGCCCCA | GCCAGGCCCT | GCAGCTGGCA | GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | 9720 |
| TTCCTCTACC | AGGGGCTCCT | GCAGGCCCTG | GAAGGGATAT | CCCCGAGTT | GGGTCCCACC | 9780 |

| TTGGACACAC | TGCAGCTGGA | CGTCGCCGAC | TTTGCCACCA | CCATCTGGCA | GCAGATGGAA | 9840 |
|------------|------------|------------|------------|------------|------------|-------|
| ACGTACTCCA | TGGCTAACTG | CTCTATAATG | ATCGATGAAA | TTATACATCA | CTTAAAGAGA | 9900 |
| CCACCTGCAC | CTTTGCTGGA | CCCGAACAAC | CTCAATGACG | AAGACGTCTC | TATCCTGATG | 9960 |
| GATCGAAACC | TTCGACTTCC | AAACCTGGAG | AGCTTCGTAA | GGGCTGTCAA | GAACTTAGAA | 10020 |
| AATGCATCAG | GTATTGAGGC | AATTCTTCGT | AATCTCCAAC | CATGTCTGCC | CTCTGCCACG | 10080 |
| GCCGCACCCT | CTCGACATCC | AATCATCATC | AAGGCAGGTG | ACTGGCAAGA | ATTCCGGGAA | 10140 |
| AAACTGACGT | TCTATCTGGT | TACCCTTGAG | CAAGCGCAGG | AACAACAGTA | CGTAGAGGGC | 10200 |
| GGTGGAGGCT | CCCCGGGTGA | ACCGTCTGGT | CCAATCTCTA | CTATCAACCC | GTCTCCTCCG | 10260 |
| TCTAAAGAAT | CTCATAAATC | TCCAAACATG | GCTGGAATGG | CCCCTGCCCT | GCAGCCCACC | 10320 |
| CAGGGTGCCA | TGCCGGCCTT | CGCCTCTGCT | TTCCAGCGCC | GGGCAGGAGG | GGTCCTGGTT | 10380 |
| GCTAGCCATC | TGCAGAGCTT | CCTGGAGGTG | TCGTACCGCG | TTCTACGCCA | CCTTGCGCAG | 10440 |
| CCCGACATGG | CTACACCATT | AGGCCCTGCC | AGCTCCCTGC | CCCAGAGCTT | CCTGCTCAAG | 10500 |
| TCTTTAGAGC | AAGTGAGGAA | GATCCAGGGC | GATGGCGCAG | CGCTCCAGGA | GAAGCTGTGT | 10560 |
| GCCACCTACA | AGCTGTGCCA | CCCCGAGGAG | CTGGTGCTGC | TCGGACACTC | TCTGGGCATC | 10620 |
| CCCTGGGCTC | CCCTGAGCTC | CTGCCCCAGC | CAGGCCCTGC | AGCTGGCAGG | CTGCTTGAGC | 10680 |
| CAACTCCATA | GCGGCCTTTT | CCTCTACCAG | GGGCTCCTGC | AGGCCCTGGA | AGGGATATCC | 10740 |
| CCCGAGTTGG | GTCCCACCTT | GGACACACTG | CAGCTGGACG | TCGCCGACTT | TGCCACCACC | 10800 |
| ATCTGGCAGC | AGATGGAAGA | ACTGACGTAC | TCCATGGCTA | ACTGCTCTAT | AATGATCGAT | 10860 |
| GAAATTATAC | ATCACTTAAA | GAGACCACCT | GCACCTTTGC | TGGACCCGAA | CAACCTCAAT | 10920 |
| GACGAAGACG | TCTCTATCCT | GATGGATCGA | AACCTTCGAC | TTCCAAACCT | GGAGAGCTTC | 10980 |
| GTAAGGGCTG | TCAAGAACTT | AGAAAATGCA | TCAGGTATTG | AGGCAATTCT | TCGTAATCTC | 11040 |
| CAACCATGTC | TGCCCTCTGC | CACGGCCGCA | CCCTCTCGAC | ATCCAATCAT | CATCAAGGCA | 11100 |
| GGTGACTGGC | AAGAATTCCG | GGAAAAACTG | ACGTTCTATC | TGGTTACCCT | TGAGCAAGCG | 11160 |
| CAGGAACAAC | AGTACGTAGA | GGGCGGTGGA | GGCTCCCCGG | GTGAACCGTC | TGGTCCAATC | 11220 |
| TCTACTATCA | ACCCGTCTCC | TCCGTCTAAA | GAATCTCATA | AATCTCCAAA | CATGGCTAGC | 11280 |
| TTCCTGGAGG | TGTCGTACCG | CGTTCTACGC | CACCTTGCGC | AGCCCGACAT | GGCTACACCA | 11340 |
| TTAGGCCCTG | CCAGCTCCCT | GCCCCAGAGC | TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGG | 11400 |
| AAGATCCAGG | GCGATGGCGC | AGCGCTCCAG | GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | 11460 |
| CACCCGAGG | AGCTGGTGCT | GCTCGGACAC | TCTCTGGGCA | TCCCCTGGGC | TCCCCTGAGC | 11520 |

| TCCTGCCCCA | GCCAGGCCCT | GCAGCTGGCA | GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | 11580 |
|------------|------------|------------|------------|------------|------------|-------|
| TTCCTCTACC | AGGGGCTCCT | GCAGGCCCTG | GAAGGGATAT | CCCCGAGTT | GGGTCCCACC | 11640 |
| TTGGACACAC | TGCAGCTGGA | CGTCGCCGAC | TTTGCCACCA | CCATCTGGCA | GCAGATGGAA | 11700 |
| GAACTGGGAA | TGGCCCCTGC | CCTGCAGCCC | ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | 11760 |
| GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | GTTGCTAGCC | ATCTGCAG | | 11808 |

(2) INFORMATION FOR SEQ ID NO:260:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:260:

| ATGGCTAACT GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT CTCCAAACAT | GGCTCAGAGC | TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGG | 480 |
| AAGATCCAGG GCGATGGCGC | AGCGCTCCAG | GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | 540 |
| CACCCGAGG AGCTGGTGCT | GCTCGGACAC | TCTCTGGGCA | TCCCCTGGGC | TCCCCTGAGC | 600 |
| | | | | | |
| TCCTGCCCCA GCCAGGCCCT | GCAGCTGGCA | GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | 660 |
| TTCCTCTACC AGGGGCTCCT | GCAGGCCCTG | GAAGGGATAT | CCCCGAGTT | GGGTCCCACC | 720 |
| TTGGACACAC TGCAGCTGGA | CGTCGCCGAC | TTTGCCACCA | CCATCTGGCA | GCAGATGGAA | 780 |
| GAACTGGGAA TGGCCCCTGC | CCTGCAGCCC | ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | 840 |
| GCTTTCCAGC GCCGGGCAGG | AGGGGTCCTG | GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | 900 |

| GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | CAGCCCGACA | TGGCTACACC | ATTAGGCCCT | 960 |
|------------|------------|------------|------------|------------|------------|-----|
| GCCAGCTCCC | TGCCC | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:261:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:261:

| ATGGCTAACT GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT CTCCAAACAT | GGCTCAGAGC | TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGG | 480 |
| AAGATCCAGG GCGATGGCGC | AGCGCTCCAG | GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | 540 |
| CACCCGAGG AGCTGGTGCT | GCTCGGACAC | TCTCTGGGCA | TCCCCTGGGC | TCCCCTGAGC | 600 |
| TCCTGCCCCA GCCAGGCCCT | GCAGCTGGCA | GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | 660 |
| TTCCTCTACC AGGGGCTCCT | GCAGGCCCTG | GAAGGGATAT | CCCCGAGTT | GGGTCCCACC | 720 |
| TTGGACACAC TGCAGCTGGA | CGTCGCCGAC | TTTGCCACCA | CCATCTGGCA | GCAGATGGAA | 780 |
| GAACTGGGAA TGGCCCCTGC | CCTGCAGCCC | ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | 840 |
| GCTTTCCAGC GCCGGGCAGG | AGGGGTCCTG | GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | 900 |
| GTGTCGTACC GCGTTCTACG | CCACCTTGCG | CAGCCCGACA | TGGCTACACC | ATTAGGCCCT | 960 |
| GCCAGCTCCC TGCCC | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:262:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:262:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTGAGCAA | GTGAGGAAGA | TCCAGGGCGA | TGGCGCAGCG | 480 |
| CTCCAGGAGA | AGCTGTGTGC | CACCTACAAG | CTGTGCCACC | CCGAGGAGCT | GGTGCTGCTC | 540 |
| GGACACTCTC | TGGGCATCCC | CTGGGCTCCC | CTGAGCTCCT | GCCCCAGCCA | GGCCCTGCAG | 600 |
| CTGGCAGGCT | GCTTGAGCCA | ACTCCATAGC | GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | 660 |
| GCCCTGGAAG | GGATATCCCC | CGAGTTGGGT | CCCACCTTGG | ACACACTGCA | GCTGGACGTC | 720 |
| GCCGACTTTG | CCACCACCAT | CTGGCAGCAG | ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | 780 |
| CAGCCCACCC | AGGGTGCCAT | GCCGGCCTTC | GCCTCTGCTT | TCCAGCGCCG | GGCAGGAGGG | 840 |
| GTCCTGGTTG | CTAGCCATCT | GCAGAGCTTC | CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | 900 |
| CTTGCGCAGC | CCGACATGGC | TACACCATTA | GGCCCTGCCA | GCTCCCTGCC | CCAGAGCTTC | 960 |
| CTGCTCAAGT | CTTTA | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:263:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:263:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTCTGCTC | GGACACTCTC | TGGGCATCCC | CTGGGCTCCC | 480 |
| CTGAGCTCCT | GCCCCAGCCA | GGCCCTGCAG | CTGGCAGGCT | GCTTGAGCCA | ACTCCATAGC | 540 |
| GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | GCCCTGGAAG | GGATATCCCC | CGAGTTGGGT | 600 |
| CCCACCTTGG | ACACACTGCA | GCTGGACGTC | GCCGACTTTG | CCACCACCAT | CTGGCAGCAG | 660 |
| ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | CAGCCCACCC | AGGGTGCCAT | GCCGGCCTTC | 720 |
| GCCTCTGCTT | TCCAGCGCCG | GGCAGGAGGG | GTCCTGGTTG | CTAGCCATCT | GCAGAGCTTC | 780 |
| CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | CTTGCGCAGC | CCGACATGGC | TACACCATTA | 840 |
| GGCCCTGCCA | GCTCCCTGCC | CCAGAGCTTC | CTGCTCAAGT | CTTTAGAGCA | AGTGAGGAAG | 900 |
| ATCCAGGGCG | ATGGCGCAGC | GCTCCAGGAG | AAGCTGTGTG | CCACCTACAA | GCTGTGCCAC | 960 |
| CCCGAGGAGC | TGGTG | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:264:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:264:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTCCCCTG | AGCTCCTGCC | CCAGCCAGGC | CCTGCAGCTG | 480 |
| GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | CTTTTCCTCT | ACCAGGGGCT | CCTGCAGGCC | 540 |
| CTGGAAGGGA | TATCCCCGA | GTTGGGTCCC | ACCTTGGACA | CACTGCAGCT | GGACGTCGCC | 600 |
| GACTTTGCCA | CCACCATCTG | GCAGCAGATG | GAAGAACTGG | GAATGGCCCC | TGCCCTGCAG | 660 |
| CCCACCCAGG | GTGCCATGCC | GGCCTTCGCC | TCTGCTTTCC | AGCGCCGGGC | AGGAGGGGTC | 720 |
| CTGGTTGCTA | GCCATCTGCA | GAGCTTCCTG | GAGGTGTCGT | ACCGCGTTCT | ACGCCACCTT | 780 |
| GCGCAGCCCG | ACATGGCTAC | ACCATTAGGC | CCTGCCAGCT | CCCTGCCCCA | GAGCTTCCTG | 840 |
| CTCAAGTCTT | TAGAGCAAGT | GAGGAAGATC | CAGGGCGATG | GCGCAGCGCT | CCAGGAGAAG | 900 |
| CTGTGTGCCA | CCTACAAGCT | GTGCCACCCC | GAGGAGCTGG | TGCTGCTCGG | ACACTCTCTG | 960 |
| GGCATCCCCT | GGGCT | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:265:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:265:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |

| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTCAGGCC | CTGCAGCTGG | CAGGCTGCTT | GAGCCAACTC | 480 |
| CATAGCGGCC | TTTTCCTCTA | CCAGGGGCTC | CTGCAGGCCC | TGGAAGGGAT | ATCCCCCGAG | 540 |
| TTGGGTCCCA | CCTTGGACAC | ACTGCAGCTG | GACGTCGCCG | ACTTTGCCAC | CACCATCTGG | 600 |
| CAGCAGATGG | AAGAACTGGG | AATGGCCCCT | GCCCTGCAGC | CCACCCAGGG | TGCCATGCCG | 660 |
| GCCTTCGCCT | CTGCTTTCCA | GCGCCGGGCA | GGAGGGGTCC | TGGTTGCTAG | CCATCTGCAG | 720 |
| AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | CGCCACCTTG | CGCAGCCCGA | CATGGCTACA | 780 |
| CCATTAGGCC | CTGCCAGCTC | CCTGCCCCAG | AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | 840 |
| AGGAAGATCC | AGGGCGATGG | CGCAGCGCTC | CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | 900 |
| TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | CACTCTCTGG | GCATCCCCTG | GGCTCCCCTG | 960 |
| AGCTCCTGCC | CCAGC | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:266:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEŅNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:266:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |

| TCTCATAAAT | CTCCAAACAT | GGCTCTGCAG | CTGGCAGGCT | GCTTGAGCCA | ACTCCATAGC | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | GCCCTGGAAG | GGATATCCCC | CGAGTTGGGT | 540 |
| CCCACCTTGG | ACACACTGCA | GCTGGACGTC | GCCGACTTTG | CCACCACCAT | CTGGCAGCAG | 600 |
| ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | CAGCCCACCC | AGGGTGCCAT | GCCGGCCTTC | 660 |
| GCCTCTGCTT | TCCAGCGCCG | GGCAGGAGGG | GTCCTGGTTG | CTAGCCATCT | GCAGAGCTTC | 720 |
| CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | CTTGCGCAGC | CCGACATGGC | TACACCATTA | 780 |
| GGCCCTGCCA | GCTCCCTGCC | CCAGAGCTTC | CTGCTCAAGT | CTTTAGAGCA | AGTGAGGAAG | 840 |
| ATCCAGGGCG | ATGGCGCAGC | GCTCCAGGAG | AAGCTGTGTG | CCACCTACAA | GCTGTGCCAC | 900 |
| CCCGAGGAGC | TGGTGCTGCT | CGGACACTCT | CTGGGCATCC | CCTGGGCTCC | CCTGAGCTCC | 960 |
| TGCCCCAGCC | AGGCC | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:267:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:267:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTCTGGCA | GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | 480 |
| TTCCTCTACC | AGGGGCTCCT | GCAGGCCCTG | GAAGGGATAT | CCCCGAGTT | GGGTCCCACC | 540 |
| TTGGACACAC | TGCAGCTGGA | CGTCGCCGAC | TTTGCCACCA | CCATCTGGCA | GCAGATGGAA | 600 |
| GAACTGGGAA | TGGCCCCTGC | CCTGCAGCCC | ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | 660 |

| GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | 720 |
|------------|------------|------------|------------|------------|------------|-----|
| GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | CAGCCCGACA | TGGCTACACC | ATTAGGCCCT | 780 |
| GCCAGCTCCC | TGCCCCAGAG | CTTCCTGCTC | AAGTCTTTAG | AGCAAGTGAG | GAAGATCCAG | 840 |
| GGCGATGGCG | CAGCGCTCCA | GGAGAAGCTG | TGTGCCACCT | ACAAGCTGTG | CCACCCGAG | 900 |
| GAGCTGGTGC | TGCTCGGACA | CTCTCTGGGC | ATCCCCTGGG | CTCCCCTGAG | CTCCTGCCCC | 960 |
| AGCCAGGCCC | TGCAG | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:268:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:268:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTGAACTG | GGAATGGCCC | CTGCCCTGCA | GCCCACCCAG | 480 |
| GGTGCCATGC | CGGCCTTCGC | CTCTGCTTTC | CAGCGCCGGG | CAGGAGGGGT | CCTGGTTGCT | 540 |
| AGCCATCTGC | AGAGCTTCCT | GGAGGTGTCG | TACCGCGTTC | TACGCCACCT | TGCGCAGCCC | 600 |
| GACATGGCTA | CACCATTAGG | CCCTGCCAGC | TCCCTGCCCC | AGAGCTTCCT | GCTCAAGTCT | 660 |
| TTAGAGCAAG | TGAGGAAGAT | CCAGGGCGAT | GGCGCAGCGC | TCCAGGAGAA | GCTGTGTGCC | 720 |
| ACCTACAAGC | TGTGCCACCC | CGAGGAGCTG | GTGCTGCTCG | GACACTCTCT | GGGCATCCCC | 780 |
| TGGGCTCCCC | TGAGCTCCTG | CCCCAGCCAG | GCCCTGCAGC | TGGCAGGCTG | CTTGAGCCAA | 840 |

| CTCCATAGCG | GCCTTTTCCT | CTACCAGGGG | CTCCTGCAGG | CCCTGGAAGG | GATATCCCCC | 900 |
|------------|------------|------------|------------|------------|------------|-----|
| GAGTTGGGTC | CCACCTTGGA | CACACTGCAG | CTGGACGTCG | CCGACTTTGC | CACCACCATC | 960 |
| TGGCAGCAGA | TGGAA | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:269:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:269:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTGGAATG | GCCCTGCCC | TGCAGCCCAC | CCAGGGTGCC | 480 |
| ATGCCGGCCT | TCGCCTCTGC | TTTCCAGCGC | CGGGCAGGAG | GGGTCCTGGT | TGCTAGCCAT | 540 |
| CTGCAGAGCT | TCCTGGAGGT | GTCGTACCGC | GTTCTACGCC | ACCTTGCGCA | GCCCGACATG | 600 |
| GCTACACCAT | TAGGCCCTGC | CAGCTCCCTG | CCCCAGAGCT | TCCTGCTCAA | GTCTTTAGAG | 660 |
| CAAGTGAGGA | AGATCCAGGG | CGATGGCGCA | GCGCTCCAGG | AGAAGCTGTG | TGCCACCTAC | 720 |
| AAGCTGTGCC | ACCCCGAGGA | GCTGGTGCTG | CTCGGACACT | CTCTGGGCAT | CCCCTGGGCT | 780 |
| CCCCTGAGCT | CCTGCCCCAG | CCAGGCCCTG | CAGCTGGCAG | GCTGCTTGAG | CCAACTCCAT | 840 |
| AGCGGCCTTT | TCCTCTACCA | GGGGCTCCTG | CAGGCCCTGG | AAGGGATATC | CCCCGAGTTG | 900 |
| GGTCCCACCT | TGGACACACT | GCAGCTGGAC | GTCGCCGACT | TTGCCACCAC | CATCTGGCAG | 960 |
| CAGATGGAAG | AACTG | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:270:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 975 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:270:

| ATGGCTAACT | GCTCTATAAT | GATCGATGAA | ATTATACATC | ACTTAAAGAG | ACCACCTGCA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCTTTGCTGG | ACCCGAACAA | CCTCAATGAC | GAAGACGTCT | CTATCCTGAT | GGATCGAAAC | 120 |
| CTTCGACTTC | CAAACCTGGA | GAGCTTCGTA | AGGGCTGTCA | AGAACTTAGA | AAATGCATCA | 180 |
| GGTATTGAGG | CAATTCTTCG | TAATCTCCAA | CCATGTCTGC | CCTCTGCCAC | GGCCGCACCC | 240 |
| TCTCGACATC | CAATCATCAT | CAAGGCAGGT | GACTGGCAAG | AATTCCGGGA | AAAACTGACG | 300 |
| TTCTATCTGG | TTACCCTTGA | GCAAGCGCAG | GAACAACAGT | ACGTAGAGGG | CGGTGGAGGC | 360 |
| TCCCCGGGTG | AACCGTCTGG | TCCAATCTCT | ACTATCAACC | CGTCTCCTCC | GTCTAAAGAA | 420 |
| TCTCATAAAT | CTCCAAACAT | GGCTAGCTTC | CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | 480 |
| CTTGCGCAGC | CCGACATGGC | TACACCATTA | GGCCCTGCCA | GCTCCCTGCC | CCAGAGCTTC | 540 |
| CTGCTCAAGT | CTTTAGAGCA | AGTGAGGAAG | ATCCAGGGCG | ATGGCGCAGC | GCTCCAGGAG | 600 |
| AAGCTGTGTG | CCACCTACAA | GCTGTGCCAC | CCCGAGGAGC | TGGTGCTGCT | CGGACACTCT | 660 |
| CTGGGCATCC | CCTGGGCTCC | CCTGAGCTCC | TGCCCCAGCC | AGGCCCTGCA | GCTGGCAGGC | 720 |
| TGCTTGAGCC | AACTCCATAG | CGGCCTTTTC | CTCTACCAGG | GGCTCCTGCA | GGCCCTGGAA | 780 |
| GGGATATCCC | CCGAGTTGGG | TCCCACCTTG | GACACACTGC | AGCTGGACGT | CGCCGACTTT | 840 |
| GCCACCACCA | TCTGGCAGCA | GATGGAAGAA | CTGGGAATGG | CCCCTGCCCT | GCAGCCCACC | 900 |
| CAGGGTGCCA | TGCCGGCCTT | CGCCTCTGCT | TTCCAGCGCC | GGGCAGGAGG | GGTCCTGGTT | 960 |
| GCTAGCCATC | TGCAG | | | | | 975 |

(2) INFORMATION FOR SEQ ID NO:271:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:271:

- Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys

 1 10 15
- Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30
- Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45
- Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 55 60
- Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80
- Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95
- Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln 100 105 110
- Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125
- Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140
- Pro Asn Met Ala Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu 145 150 155 160
- Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala 165 170 175
- Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu 180 185 190
- Leu Val Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser 195 200 205
- Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu 210 215 220
- His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly 225 230 235 240
- Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val 245 250 255
- Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met 260 265 270

Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser 275 280 285

Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln 290 295 300

Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 305 310 315 320

Asp Met Ala Thr Pro 325

(2) INFORMATION FOR SEQ ID NO:272:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:272:

Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15

Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30

Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45

Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 55 60

Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80

Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95

Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln
100 105 110

Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125

Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140

Pro Asn Met Ala Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu 145 150 155 160 Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala 165 170 175

Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu 180 185 190

Leu Val Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser 195 200 205

Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu 210 225 220

His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly 225 230 235 240

Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val 245 250 255

Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met 260 265 270

Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser 275 280 285

Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln 290 295 300

Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 305 310 315 320

Asp Met Ala Thr Pro 325

(2) INFORMATION FOR SEQ ID NO:273:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:273:

Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 $$ 5 $$ 10 $$ 15

Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30

Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45

Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 120 Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn Met Ala Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile 150 Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys 165 170 Leu Cys His Pro Glu Glu Leu Val Leu Gly His Ser Leu Gly Ile 185 Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala 200 Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp 230 Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln 245 250 Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala 265 Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu 280 Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu 295 Arg His Leu Ala Gln Pro Asp Met Ala Thr Pro Leu Gly Pro Ala Ser 315 Ser Leu Pro Gln Ser 325

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:274:
- Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15
- Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30
- Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45
- Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 55 60
- Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80
- Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95
- Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln 100 105 110
- Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125
- Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140
- Pro Asn Met Ala Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala 145 150 155 160
- Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu 165 170 175
- Leu Val Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser 180 185 190
- Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu 195 200 205
- His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly 210 215 220
- Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val 225 230 235 240

Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met 245 250 255

Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser 260 265 270

Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln 275 280 285

Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 290 295 300

Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe 305 310 315 320

Leu Leu Lys Ser Leu 325

(2) INFORMATION FOR SEQ ID NO:275:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:275:

Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15

Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30

Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45

Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 55 60

Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80

Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95

Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln
100 105 110

Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro

115 120 125

Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140

Pro Asn Met Ala Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro 145 150 155 160

Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser 165 170 175

Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu 180 185 190

Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu 195 200 205

Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu 210 215 220

Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe 225 230 235 240

Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His 245 250 255

Leu Gl
n Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala
 260 265 270

Gln Pro Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln 275 280 285

Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp 290 295 300

Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His 305 310 315 320

Pro Glu Glu Leu Val 325

(2) INFORMATION FOR SEQ ID NO:276:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:276:

| Met 1 | Ala | Asn | Суѕ | Ser 5 | Ile | Met | Ile | Asp | Glu 10 | Ile | Ile | His | His | Leu 15 | Lys |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Arg | Pro | Pro | Ala 20 | Pro | Leu | Leu | Asp | Pro 25 | Asn | Asn | Leu | Asn | Asp 30 | Glu | Asp |
| Val | Ser | Ile 35 | Leu | Met | Asp | Arg | Asn 40 | Leu | Arg | Leu | Pro | Asn 45 | Leu | Glu | Ser |
| Phe | Val 50 | Arg | Ala | Val | Lys | Asn 55 | Leu | Glu | Asn | Ala | Ser 60 | Gly | Ile | Glu | Ala |
| Ile 65 | Leu | Arg | Asn | Leu | Gln 70 | Pro | Cys | Leu | Pro | Ser 75 | Ala | Thr | Ala | Ala | Pro 80 |
| Ser | Arg | His | Pro | Ile 85 | Ile | Ile | Lys | Ala | Gly 90 | Asp | Trp | Gln | Glu | Phe 95 | Arg |
| Glu | Lys | Leu | Thr 100 | Phe | Tyr | Leu | Val | Thr 105 | Leu | Glu | Gln | Ala | Gln 110 | Glu | Gln |
| Gln | Tyr | Val 115 | Glu | Gly | Gly | Gly | Gly 120 | Ser | Pro | Gly | Glu | Pro 125 | Ser | Gly | Pro |
| Ile | Ser 130 | Thr | Ile | Asn | Pro | Ser 135 | Pro | Pro | Ser | Lys | Glu 140 | Ser | His | Lys | Ser |
| Pro 145 | Asn | Met | Ala | Pro | Leu 150 | Ser | Ser | Cys | Pro | Ser 155 | Gln | Ala | Leu | Gln | Leu 160 |
| Ala | Gly | Cys | Leu | Ser 165 | Gln | Leu | His | Ser | Gly 170 | Leu | Phe | Leu | Tyr | Gln 175 | Gly |
| Leu | Leu | Gln | Ala 180 | Leu | Glu | Gly | Ile | Ser 185 | Pro | Glu | Leu | Gly | Pro 190 | Thr | Leu |
| Asp | Thr | Leu 195 | Gln | Leu | Asp | Val | Ala 200 | Asp | Phe | Ala | Thr | Thr 205 | Ile | Trp | Gln |
| Gln | Met 210 | Glu | Glu | Leu | Gly | Met 215 | Ala | Pro | Ala | Leu | Gln 220 | Pro | Thr | Gln | Gly |
| Ala 225 | Met | Pro | Ala | Phe | Ala 230 | Ser | Ala | Phe | Gln | Arg 235 | Arg | Ala | Gly | Gly | Val 240 |
| Leu | Val | Ala | Ser | His 245 | Leu | Gln | Ser | Phe | Leu 250 | Glu | Val | Ser | Tyr | Arg 255 | Val |
| Leu | Arg | His | Leu 260 | Ala | Gln | Pro | Asp | Met 265 | Ala | Thr | Pro | Leu | Gly 270 | Pro | Ala |
| Ser | Ser | Leu 275 | Pro | Gln | Ser | Phe | Leu 280 | Leu | Lys | Ser | Leu | Glu 285 | Gln | Val | Arg |
| Lys | Ile 290 | Gln | Gly | Asp | Gly | Ala 295 | Ala | Leu | Gln | Glu | Lys 300 | Leu | Cys | Ala | Thr |

Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu 305 310 315 320

Gly Ile Pro Trp Ala 325

(2) INFORMATION FOR SEQ ID NO:277:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:277:

Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15

Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30

Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45

Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 55 60

Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80

Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95

Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln
100 105 110

Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125

Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140

Pro Asn Met Ala Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu 145 150 155 160

His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly 165 170 175

Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val 180 185 190 Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met 195 200 205

Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser 210 215 220

Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln 225 230 235 240

Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 245 250 255

Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe 260 265 270

Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala 275 280 285

Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu 290 295 300

Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu 305 310 315 320

Ser Ser Cys Pro Ser 325

(2) INFORMATION FOR SEQ ID NO:278:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:278:

Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 $$ 5 $$ 10 $$ 15

Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp
20 25 30

Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45

Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 60

Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80

Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln 105 Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 120 Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn Met Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser 150 Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser 165 170 Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp 180 185 Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro 200 Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe 210 215 220 Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe 230 Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Asp Met 245 250 Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu 260 265 Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu 280 Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu 290 295 300 Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser 305 310 315 Cys Pro Ser Gln Ala

(2) INFORMATION FOR SEQ ID NO:279:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:279:

- Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15
- Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp
 20 25 30
- Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45
- Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 60
- Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80
- Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95
- Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln
 100 105 110
- Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125
- Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140
- Pro Asn Met Ala Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 145 150 155 160
- Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 165 170 175
- Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 180 185 190
- Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 195 200 205
- Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 210 215 220
- Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 225 230 235 240
- Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Asp Met Ala Thr 245 250 255
- Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser 260 265 270

Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu 275 280 285

Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu 290 295 300

Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro 305 310 315 320

Ser Gln Ala Leu Gln 325

(2) INFORMATION FOR SEQ ID NO:280:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:280:

Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15

Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30

Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45

Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 55 60

Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80

Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95

Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln 100 105 110

Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125

Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140

Pro Asn Met Ala Glu Leu Gly Met Ala Pro Ala Leu Gln Pro Thr Gln 145 150 155 160

| Gly | Ala | Met | Pro | Ala | Phe | Ala | Ser | Ala | Phe | Gln | Arg | Arg | Ala | Gly | Gly |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | 165 | | | | | 170 | | | | | 175 | |

Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg 180 185 190

Val Leu Arg His Leu Ala Gln Pro Asp Met Ala Thr Pro Leu Gly Pro 195 200 205

Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val 210 215 220

Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala 225 230 235 240

Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser 245 250 255

Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu 260 265 270

Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr 275 280 285

Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro 290 295 300

Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile 305 310 315 320

Trp Gln Gln Met Glu 325

(2) INFORMATION FOR SEQ ID NO:281:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:281:

Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys 1 5 10 15

Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30

Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45

Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln 105 Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 120 Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser Pro Asn Met Ala Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala 150 Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu 165 170 Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu 180 185 Arg His Leu Ala Gln Pro Asp Met Ala Thr Pro Leu Gly Pro Ala Ser 200 Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr 230 Lys Leu Cys His Pro Glu Glu Leu Val Leu Gly His Ser Leu Gly 245 250 Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu 260 265 Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly 275 280 Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu 295 300 Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln 305 310 315 Gln Met Glu Glu Leu 325

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 325 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:282:
- Met Ala Asn Cys Ser Ile Met Ile Asp Glu Ile Ile His His Leu Lys

 1 10 15
- Arg Pro Pro Ala Pro Leu Leu Asp Pro Asn Asn Leu Asn Asp Glu Asp 20 25 30
- Val Ser Ile Leu Met Asp Arg Asn Leu Arg Leu Pro Asn Leu Glu Ser 35 40 45
- Phe Val Arg Ala Val Lys Asn Leu Glu Asn Ala Ser Gly Ile Glu Ala 50 55 60
- Ile Leu Arg Asn Leu Gln Pro Cys Leu Pro Ser Ala Thr Ala Ala Pro 65 70 75 80
- Ser Arg His Pro Ile Ile Ile Lys Ala Gly Asp Trp Gln Glu Phe Arg 85 90 95
- Glu Lys Leu Thr Phe Tyr Leu Val Thr Leu Glu Gln Ala Gln Glu Gln 100 105 110
- Gln Tyr Val Glu Gly Gly Gly Ser Pro Gly Glu Pro Ser Gly Pro 115 120 125
- Ile Ser Thr Ile Asn Pro Ser Pro Pro Ser Lys Glu Ser His Lys Ser 130 135 140
- Pro Asn Met Ala Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His 145 150 155 160
- Leu Ala Gln Pro Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu 165 170 175
- Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln 180 185 190
- Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu 195 200 205
- Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro 210 215 220
- Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly

225 230 235 240

Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu 245 250 255

Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr 260 265 270

Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met 275 280 285

Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met 290 295 300

Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val 305 310 315 320

Ala Ser His Leu Gln 325

(2) INFORMATION FOR SEQ ID NO:283:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 153 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 7
- (D) OTHER INFORMATION: /note= "Xaa at position 7 is Ser or Ala;"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 112
- (D) OTHER INFORMATION: /note= "Xaa at position 112 is deleted or Leu, Ala, Val, Ile, Pro, Phe, Trp, or Met;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 113
- (D) OTHER INFORMATION: /note= "Xaa at position 113 is deleted or Pro, Phe, Ala, Val, Leu, Ile, Trp, or Met;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 114
- (D) OTHER INFORMATION: /note= "Xaa at position 114 is deleted or Pro, Phe, Ala, Val, Leu, Ile, Trp, or Met;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site

- (B) LOCATION: 115
- (D) OTHER INFORMATION: /note= "Xaa at position 115 is deleted or Gln, Gly, Ser, Thr, Tyr, or Asn;"
 - (ix) FEATURE:
 - (A) NAME/KEY: Modified-site
 - (B) LOCATION: 151
- (D) OTHER INFORMATION: /note = "Xaa at position 151 is Ser or Ala;"
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:283:

Ser Pro Ala Pro Pro Ala Xaa Asp Leu Arg Val Leu Ser Lys Leu Leu 1 5 10 15

Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val 20 25 30

His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu 35 40 45

Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu 50 55 60

Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln 65 70 75 80

Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln 85 90 95

Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Xaa 100 105 110

Xaa Xaa Xaa Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe 115 120 125

Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu 130 135 140

Val Gly Gly Ser Thr Leu Xaa Val Arg

- (2) INFORMATION FOR SEQ ID NO:284:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 162 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: peptide
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:284:

Met Ala Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe Leu 1 5 10 15

Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu Val 20 25 30

Gly Gly Ser Thr Leu Ala Val Arg Glu Phe Gly Gly Asn Met Ala Ser 35 40 45

Pro Ala Pro Pro Ala Ala Asp Leu Arg Val Leu Ser Lys Leu Leu Arg 50 55 60

Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val His 65 70 75 80

Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu Gly 85 90 95

Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu Gly
100 105 110

Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln Leu 115 120 125

Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln Val 130 135 140

Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu Pro 145 150 155 160

Pro Gln

(2) INFORMATION FOR SEQ ID NO:285:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 162 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:285:

Met Ala Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly
1 10 15

Gln Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln
20 25 30

Leu Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile 35 40 45

Phe Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met 50 55 60

Leu Val Gly Gly Ser Thr Leu Ala Val Arg Glu Phe Gly Gly Asn Met 70 75 80

Ala Ser Pro Ala Pro Pro Ala Ala Asp Leu Arg Val Leu Ser Lys Leu 85 90 95

Leu Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu 100 105 110

Val His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser 115 120 125

Leu Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile 130 135 140

Leu Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly 145 150 155 160

Gln Leu

(2) INFORMATION FOR SEQ ID NO:286:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 180 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:286:

Ala Thr Gly Gly Cys Thr Gly Gly Ala Cys Cys Cys Ala Cys Thr Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gly Cys Cys Thr Cys Thr Cys Ala Thr Cys Cys Cys Thr Cys Cys Thr 20 25 30

Gly Gly Gly Cys Ala Gly Cys Thr Thr Thr Cys Thr Gly Gly Ala 35 40 45

Cys Ala Gly Gly Thr Cys Cys Gly Thr Cys Thr Cys Cys 50 55 60

Thr Thr Gly Gly Gly Cys Cys Cys Thr Gly Cys Ala Gly Ala Gly 65 70 75 80

| Cys | Cys | Thr | Cys | Cys 85 | Thr | Thr | Gly | Gly | Ala 90 | Ala | Cys | Cys | Cys | Ala 95 | Gly |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----|
| Cys | Thr | Thr | Cys 100 | Cys | Thr | Cys | Cys | Ala 105 | | Ala | Gly | Gly | Gly 110 | Cys | Ala |
| Gly | Gly | Ala 115 | Cys | Cys | Ala | Cys | Ala 120 | Gly | Cys | Thr | Cys | Ala 125 | Cys | Ala | Ala |
| Gly | Gly 130 | Ala | Thr | Cys | Cys | Cys 135 | Ala | Ala | Thr | Gly | Cys 140 | Cys | Ala | Thr | Су |
| Thr 145 | Thr | Cys | Cys | Thr | Gly 150 | Ala | Gly | Cys | Thr | Thr 155 | Cys | Cys | Ala | Ala | Cy: |
| Ala | Cys | Cys | Thr | Gly 165 | Cys | Thr | Cys | Cys | Gly 170 | Ala | Gly | Gly | Ala | Ala 175 | Ala |
| Gly | Gly | Thr | Gly | | | | | | | | | | | | |

180

(2) INFORMATION FOR SEQ ID NO:287:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 486 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:287:

| ATGGCTGGCA | GGACCACAGC | TCACAAGGAT | CCCAATGCCA | TCTTCCTGAG | CTTCCAACAC | . 60 |
|------------|------------|------------|------------|------------|------------|------|
| CTGCTCCGAG | GAAAGGTGCG | TTTCCTGATG | CTTGTAGGAG | GGTCCACCCT | CGCCGTCAGG | 120 |
| GAATTCGGCG | GCAACATGGC | GTCTCCGGCG | CCGCCTGCTG | CTGACCTCCG | AGTCCTCAGT | 180 |
| AAACTGCTTC | GTGACTCCCA | TGTCCTTCAC | AGCAGACTGA | GCCAGTGCCC | AGAGGTTCAC | 240 |
| CCTTTGCCTA | CACCTGTCCT | GCTGCCTGCT | GTGGACTTTA | GCTTGGGAGA | ATGGAAAACC | 300 |
| CAGATGGAGG | AGACCAAGGC | ACAGGACATT | CTGGGAGCAG | TGACCCTTCT | GCTGGAGGGA | 360 |
| GTGATGGCAG | CACGGGGACA | ACTGGGACCC | ACTTGCCTCT | CATCCCTCCT | GGGGCAGCTT | 420 |
| TCTGGACAGG | TCCGTCTCCT | CCTTGGGGCC | CTGCAGAGCC | TCCTTGGAAC | CCAGCTTCCT | 480 |
| CCACAG | | | | | | 486 |

(2) INFORMATION FOR SEQ ID NO:288:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:288:

| CAGAGCTTCC | TGCTCAAGTC | TTTAGAGCAA | GTGAGGAAGA | TCCAGGGCGA | TGGCGCAGCG | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CTCCAGGAGA | AGCTGTGTGC | CACCTACAAG | CTGTGCCACC | CCGAGGAGCT | GGTGCTGCTC | 120 |
| GGACACTCTC | TGGGCATCCC | CTGGGCTCCC | CTGAGCTCCT | GCCCCAGCCA | GGCCCTGCAG | 180 |
| CTGGCAGGCT | GCTTGAGCCA | ACTCCATAGC | GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | 240 |
| GCCCTGGAAG | GGATATCCCC | CGAGTTGGGT | CCCACCTTGG | ACACACTGCA | GCTGGACGTC | 300 |
| GCCGACTTTG | CCACCACCAT | CTGGCAGCAG | ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | 360 |
| CAGCCCACCC | AGGGTGCCAT | GCCGGCCTTC | GCCTCTGCTT | TCCAGCGCCG | GGCAGGAGGG | 420 |
| GTCCTGGTTG | CTAGCCATCT | GCAGAGCTTC | CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | 480 |
| CTTGCGCAGC | CCGACATGGC | TACACCATTA | GGCCCTGCCA | GCTCCCTGCC | С | 531 |

- (2) INFORMATION FOR SEQ ID NO:289:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:289:

| GAACTGGGAA | TGGCCCCTGC | CCTGCAGCCC | ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | 120 |
| GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | CAGCCCGACA | TGGCTACACC | ATTAGGCCCT | 180 |
| GCCAGCTCCC | TGCCCCAGAG | CTTCCTGCTC | AAGTCTTTAG | AGCAAGTGAG | GAAGATCCAG | 240 |
| GGCGATGGCG | CAGCGCTCCA | GGAGAAGCTG | TGTGCCACCT | ACAAGCTGTG | CCACCCGAG | 300 |

| GAGCTGGTGC | TGCTCGGACA | CTCTCTGGGC | ATCCCCTGGG | CTCCCCTGAG | CTCCTGCCCC | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| AGCCAGGCCC | TGCAGCTGGC | AGGCTGCTTG | AGCCAACTCC | ATAGCGGCCT | TTTCCTCTAC | 420 |
| CAGGGGCTCC | TGCAGGCCCT | GGAAGGGATA | TCCCCCGAGT | TGGGTCCCAC | CTTGGACACA | 480 |
| CTGCAGCTGG | ACGTCGCCGA | CTTTGCCACC | ACCATCTGGC | AGCAGATGGA | A | 531 |

- (2) INFORMATION FOR SEQ ID NO:290:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:290:

| GGAATGGCCC | CTGCCCTGCA | GCCCACCCAG | GGTGCCATGC | CGGCCTTCGC | CTCTGCTTTC | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CAGCGCCGGG | CAGGAGGGGT | CCTGGTTGCT | AGCCATCTGC | AGAGCTTCCT | GGAGGTGTCG | 120 |
| TACCGCGTTC | TACGCCACCT | TGCGCAGCCC | GACATGGCTA | CACCATTAGG | CCCTGCCAGC | 180 |
| TCCCTGCCCC | AGAGCTTCCT | GCTCAAGTCT | TTAGAGCAAG | TGAGGAAGAT | CCAGGGCGAT | 240 |
| GGCGCAGCGC | TCCAGGAGAA | GCTGTGTGCC | ACCTACAAGC | TGTGCCACCC | CGAGGAGCTG | 300 |
| GTGCTGCTCG | GACACTCTCT | GGGCATCCCC | TGGGCTCCCC | TGAGCTCCTG | CCCCAGCCAG | 360 |
| GCCCTGCAGC | TGGCAGGCTG | CTTGAGCCAA | CTCCATAGCG | GCCTTTTCCT | CTACCAGGGG | 420 |
| CTCCTGCAGG | CCCTGGAAGG | GATATCCCCC | GAGTTGGGTC | CCACCTTGGA | CACACTGCAG | 480 |
| CTGGACGTCG | CCGACTTTGC | CACCACCATC | TGGCAGCAGA | TGGAAGAACT | G | 531 |

- (2) INFORMATION FOR SEQ ID NO:291:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:291:

| TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGG | AAGATCCAGG | GCGATGGCGC | AGCGCTCCAG | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | CACCCGAGG | AGCTGGTGCT | GCTCGGACAC | 120 |
| TCTCTGGGCA | TCCCCTGGGC | TCCCCTGAGC | TCCTGCCCCA | GCCAGGCCCT | GCAGCTGGCA | 180 |
| GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | TTCCTCTACC | AGGGGCTCCT | GCAGGCCCTG | 240 |
| GAAGGGATAT | CCCCGAGTT | GGGTCCCACC | TTGGACACAC | TGCAGCTGGA | CGTCGCCGAC | 300 |
| TTTGCCACCA | CCATCTGGCA | GCAGATGGAA | GAACTGGGAA | TGGCCCCTGC | CCTGCAGCCC | 360 |
| ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | 420 |
| GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | 480 |
| CAGCCCGACA | TGGCTACACC | ATTAGGCCCT | GCCAGCTCCC | TGCCCCAGAG | С | 531 |

(2) INFORMATION FOR SEQ ID NO:292:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:292:

| AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | CGCCACCTTG | CGCAGCCCGA | CATGGCTACA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCATTAGGCC | CTGCCAGCTC | CCTGCCCCAG | AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | 120 |
| AGGAAGATCC | AGGGCGATGG | CGCAGCGCTC | CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | 180 |
| TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | CACTCTCTGG | GCATCCCCTG | GGCTCCCCTG | 240 |
| AGCTCCTGCC | CCAGCCAGGC | CCTGCAGCTG | GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | 300 |
| CTTTTCCTCT | ACCAGGGGCT | CCTGCAGGCC | CTGGAAGGGA | TATCCCCCGA | GTTGGGTCCC | 360 |
| ACCTTGGACA | CACTGCAGCT | GGACGTCGCC | GACTTTGCCA | CCACCATCTG | GCAGCAGATG | 420 |
| GAAGAACTGG | GAATGGCCCC | TGCCCTGCAG | CCCACCCAGG | GTGCCATGCC | GGCCTTCGCC | 480 |
| TCTGCTTTCC | AGCGCCGGGC | AGGAGGGGTC | CTGGTTGCTA | GCCATCTGCA | G | 531 |
| | | | | | | |

(2) INFORMATION FOR SEQ ID NO:293:

(i) SEQUENCE CHARACTERISTICS:

| (A) | LENGTH: | 531 b | ase pairs |
|-----|----------|--------|-----------|
| (B) | TYPE: nu | ıcleic | acid |
| (C) | STRANDE | ONESS: | unknown |

(D) TOPOLOGY: unknown

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:293:

| AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | CGCCACCTTG | CGCAGCCCGA | CATGGCTACA | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| CCATTAGGCC | CTGCCAGCTC | CCTGCCCCAG | AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | 120 |
| AGGAAGATCC | AGGGCGATGG | CGCAGCGCTC | CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | 180 |
| TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | CACTCTCTGG | GCATCCCCTG | GGCTCCCCTG | 240 |
| AGCTCCTGCC | CCAGCCAGGC | CCTGCAGCTG | GCAGGCTGCT | TGAGCCAACT | CCATAGCGGC | 300 |
| CTTTTCCTCT | ACCAGGGGCT | CCTGCAGGCC | CTGGAAGGGA | TATCCCCGA | GTTGGGTCCC | 360 |
| ACCTTGGACA | CACTGCAGCT | GGACGTCGCC | GACTTTGCCA | CCACCATCTG | GCAGCAGATG | 420 |
| GAAGAACTGG | GAATGGCCCC | TGCCCTGCAG | CCCACCCAGG | GTGCCATGCC | GGCCTTCGCC | 480 |
| TCTGCTTTCC | AGCGCCGGGC | AGGAGGGTC | CTGGTTGCTA | GCCATCTGCA | G | 531 |
| | | | | | | |

(2) INFORMATION FOR SEQ ID NO:294:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:294:

| TTAGGCCCTG | CCAGCTCCCT | GCCCCAGAGC | TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGG | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| AAGATCCAGG | GCGATGGCGC | AGCGCTCCAG | GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | 120 |
| CACCCGAGG | AGCTGGTGCT | GCTCGGACAC | TCTCTGGGCA | TCCCCTGGGC | TCCCCTGAGC | 180 |
| TCCTGCCCCA | GCCAGGCCCT | GCAGCTGGCA | GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | 240 |
| TTCCTCTACC | AGGGGCTCCT | GCAGGCCCTG | GAAGGGATAT | CCCCGAGTT | GGGTCCCACC | 300 |

| TTGGACACAC | TGCAGCTGGA | CGTCGCCGAC | TTTGCCACCA | CCATCTGGCA | GCAGATGGAA | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| GAACTGGGAA | TGGCCCCTGC | CCTGCAGCCC | ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | 420 |
| GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | 480 |
| GTGTCGTACC | GCGTTCTACG | CCACCTTGCG | CAGCCCGACA | TGGCTACACC | A | 531 |

(2) INFORMATION FOR SEQ ID NO:295:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:295:

| CTGCTCGGAC | ACTCTCTGGG | CATCCCCTGG | GCTCCCCTGA | GCTCCTGCCC | CAGCCAGGCC | 60 |
|------------|------------|------------|------------|------------|------------|-------|
| CTGCAGCTGG | CAGGCTGCTT | GAGCCAACTC | CATAGCGGCC | TTTTCCTCTA | CCAGGGGCTC | . 120 |
| CTGCAGGCCC | TGGAAGGGAT | ATCCCCGAG | TTGGGTCCCA | CCTTGGACAC | ACTGCAGCTG | 180 |
| GACGTCGCCG | ACTTTGCCAC | CACCATCTGG | CAGCAGATGG | AAGAACTGGG | AATGGCCCCT | 240 |
| GCCCTGCAGC | CCACCCAGGG | TGCCATGCCG | GCCTTCGCCT | CTGCTTTCCA | GCGCCGGGCA | 300 |
| GGAGGGGTCC | TGGTTGCTAG | CCATCTGCAG | AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | 360 |
| CGCCACCTTG | CGCAGCCCGA | CATGGCTACA | CCATTAGGCC | CTGCCAGCTC | CCTGCCCCAG | 420 |
| AGCTTCCTGC | TCAAGTCTTT | AGAGCAAGTG | AGGAAGATCC | AGGGCGATGG | CGCAGCGCTC | 480 |
| CAGGAGAAGC | TGTGTGCCAC | CTACAAGCTG | TGCCACCCCG | AGGAGCTGGT | G | 531 |

(2) INFORMATION FOR SEQ ID NO:296:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:296:

| CCCCTGAGCT | CCTGCCCCAG | CCAGGCCCTG | CAGCTGGCAG | GCTGCTTGAG | CCAACTCCAT | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| AGCGGCCTTT | TCCTCTACCA | GGGGCTCCTG | CAGGCCCTGG | AAGGGATATC | CCCCGAGTTG | 120 |
| GGTCCCACCT | TGGACACACT | GCAGCTGGAC | GTCGCCGACT | TTGCCACCAC | CATCTGGCAG | 180 |
| CAGATGGAAG | AACTGGGAAT | GGCCCCTGCC | CTGCAGCCCA | CCCAGGGTGC | CATGCCGGCC | 240 |
| TTCGCCTCTG | CTTTCCAGCG | CCGGGCAGGA | GGGGTCCTGG | TTGCTAGCCA | TCTGCAGAGC | 300 |
| TTCCTGGAGG | TGTCGTACCG | CGTTCTACGC | CACCTTGCGC | AGCCCGACAT | GGCTACACCA | 360 |
| TTAGGCCCTG | CCAGCTCCCT | GCCCCAGAGC | TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGG | 420 |
| AAGATCCAGG | GCGATGGCGC | AGCGCTCCAG | GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | 480 |
| CACCCGAGG | AGCTGGTGCT | GCTCGGACAC | TCTCTGGGCA | TCCCCTGGGC | Т | 531 |

(2) INFORMATION FOR SEQ ID NO:297:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: other nucleic acid

(A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:297:

| CAGGCCCTGC | AGCTGGCAGG | CTGCTTGAGC | CAACTCCATA | GCGGCCTTTT | CCTCTACCAG | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| GGGCTCCTGC | AGGCCCTGGA | AGGGATATCC | CCCGAGTTGG | GTCCCACCTT | GGACACACTG | 120 |
| CAGCTGGACG | TCGCCGACTT | TGCCACCACC | ATCTGGCAGC | AGATGGAAGA | ACTGGGAATG | 180 |
| GCCCCTGCCC | TGCAGCCCAC | CCAGGGTGCC | ATGCCGGCCT | TCGCCTCTGC | TTTCCAGCGC | 240 |
| CGGGCAGGAG | GGGTCCTGGT | TGCTAGCCAT | CTGCAGAGCT | TCCTGGAGGT | GTCGTACCGC | 300 |
| GTTCTACGCC | ACCTTGCGCA | GCCCGACATG | GCTACACCAT | TAGGCCCTGC | CAGCTCCCTG | 360 |
| CCCCAGAGCT | TCCTGCTCAA | GTCTTTAGAG | CAAGTGAGGA | AGATCCAGGG | CGATGGCGCA | 420 |
| GCGCTCCAGG | AGAAGCTGTG | TGCCACCTAC | AAGCTGTGCC | ACCCCGAGGA | GCTGGTGCTG | 480 |
| CTCGGACACT | CTCTGGGCAT | CCCCTGGGCT | CCCCTGAGCT | CCTGCCCCAG | С | 531 |

(2) INFORMATION FOR SEQ ID NO:298:

(i) SEQUENCE CHARACTERISTICS:

| (A) DESCRIPTION: /desc = "synthet | ic" | | |
|---|------------|------------|-----|
| | | | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29 | 8: | | |
| CTGCAGCTGG CAGGCTGCTT GAGCCAACTC CATAGCGGCC | TTTTCCTCTA | CCAGGGGCTC | 60 |
| CTGCAGGCCC TGGAAGGGAT ATCCCCCGAG TTGGGTCCCA | CCTTGGACAC | ACTGCAGCTG | 120 |
| GACGTCGCCG ACTTTGCCAC CACCATCTGG CAGCAGATGG | AAGAACTGGG | AATGGCCCCT | 180 |
| GCCCTGCAGC CCACCCAGGG TGCCATGCCG GCCTTCGCCT | CTGCTTTCCA | GCGCCGGGCA | 240 |
| GGAGGGGTCC TGGTTGCTAG CCATCTGCAG AGCTTCCTGG | AGGTGTCGTA | CCGCGTTCTA | 300 |
| CGCCACCTTG CGCAGCCCGA CATGGCTACA CCATTAGGCC | CTGCCAGCTC | CCTGCCCCAG | 360 |
| AGCTTCCTGC TCAAGTCTTT AGAGCAAGTG AGGAAGATCC | AGGGCGATGG | CGCAGCGCTC | 420 |
| CAGGAGAAGC TGTGTGCCAC CTACAAGCTG TGCCACCCCG | AGGAGCTGGT | GCTGCTCGGA | 480 |
| CACTCTCTGG GCATCCCCTG GGCTCCCCTG AGCTCCTGCC | CCAGCCAGGC | С | 531 |
| (2) INFORMATION FOR SEQ ID NO:299: | | | |
| (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 531 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: unknown(D) TOPOLOGY: unknown | | | |
| <pre>(ii) MOLECULE TYPE: other nucleic acid (A) DESCRIPTION: /desc = "synthet</pre> | ic" | | |
| (xi) SEQUENCE DESCRIPTION: SEQ ID NO:29 | 9: | | |
| CTGGCAGGCT GCTTGAGCCA ACTCCATAGC GGCCTTTTCC | TCTACCAGGG | GCTCCTGCAG | 60 |
| GCCCTGGAAG GGATATCCCC CGAGTTGGGT CCCACCTTGG | ACACACTGCA | GCTGGACGTC | 120 |
| GCCGACTTTG CCACCACCAT CTGGCAGCAG ATGGAAGAAC | TGGGAATGGC | CCCTGCCCTG | 180 |
| CAGCCCACCC AGGGTGCCAT GCCGGCCTTC GCCTCTGCTT | TCCAGCGCCG | GGCAGGAGGG | 240 |
| GTCCTGGTTG CTAGCCATCT GCAGAGCTTC CTGGAGGTGT | CGTACCGCGT | TCTACGCCAC | 300 |
| | | | |

(A) LENGTH: 531 base pairs(B) TYPE: nucleic acid(C) STRANDEDNESS: unknown(D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: other nucleic acid

| CTTGCGCAGC | CCGACATGGC | TACACCATTA | GGCCCTGCCA | GCTCCCTGCC | CCAGAGCTTC | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| CTGCTCAAGT | CTTTAGAGCA | AGTGAGGAAG | ATCCAGGGCG | ATGGCGCAGC | GCTCCAGGAG | 420 |
| AAGCTGTGTG | CCACCTACAA | GCTGTGCCAC | CCCGAGGAGC | TGGTGCTGCT | CGGACACTCT | 480 |
| CTGGGCATCC | CCTGGGCTCC | CCTGAGCTCC | TGCCCCAGCC | AGGCCCTGCA | G | 531 |

(2) INFORMATION FOR SEQ ID NO:300:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:300:
- Gln Ser Phe Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly
 1 5 10 15
- Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys 20 25 30
- His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$
- Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys 50 60
- Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln 65 70 75 80
- Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu 85 90 95
- Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu 100 105 110
- Glu Leu Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro 115 120 125
- Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala 130 135 140
- Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His 150 155 160
- Leu Ala Gln Pro Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu 165 170 175

(2) INFORMATION FOR SEQ ID NO:301:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:301:
- Glu Leu Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro 1 5 10 15
- Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala 20 25 30
- Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His 35 40 45
- Leu Ala Gln Pro Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu 50 55 60
- Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln 65 70 75 80
- Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu 85 90 95
- Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro 100 105 110
- Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly
 115 120 125
- Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu 130 135 140
- Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr 145 150 155 160
- Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met 165 170 175

Glu

(2) INFORMATION FOR SEQ ID NO:302:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids

- (B) TYPE: amino acid
- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:302:

Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His 20 25 30

Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala 35 40 45

Gln Pro Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln 50 55 60

Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp 65 70 75 80

Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His
85 90 95

Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala 100 105 110

Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu 115 120 125

Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala 130 135 140

Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln 145 150 155 160

Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu 165 170 175

Leu

(2) INFORMATION FOR SEQ ID NO:303:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:303:

Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly
1 5 10 15

Ala Ala Leu Gl
n Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30 \hspace{1.5cm}$

Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro 35 40 45

Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser 50 55 60

Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu 65 70 75 80

Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu 85 90 95

Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu 100 105 110

Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe 115 120 125

Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His 130 135 140

Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala 145 150 155 160

Gln Pro Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln 165 170 175

Ser

(2) INFORMATION FOR SEQ ID NO:304:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:304:

Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 1 5 10 15

Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe 20 25 30

Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala 35 40 45

Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu 50 55 60

Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu 65 70 75 80

Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln 85 90 95

Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu
100 105 110

Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp 115 120 125

Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly 130 135 140

Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala 145 150 155 160

Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu 165 170 175

Gln

(2) INFORMATION FOR SEQ ID NO:305:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:305:

Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 1 5 10 15

Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 20 25 30

Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 35 40 45

Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 50 55 60

Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 65 70 75 80

Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 85 90 95

Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 100 105 110

Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 115 120 125

Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 130 135 140

Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Asp Met Ala Thr 145 150 155 160

Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser 165 170 175

Leu

(2) INFORMATION FOR SEQ ID NO: 306:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:306:

Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu 1 5 10 15

Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 20 25 30

Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 35 40 45

Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 50 60

Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 65 70 75 80

Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 85 90 95

Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala
100 105 110

Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 115 120 125

Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 130 135 140

Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 145 150 155 160

Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Asp Met Ala Thr 165 170 175

Pro

(2) INFORMATION FOR SEQ ID NO:307:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:307:

Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys
1 5 10 15

Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser 20 25 30

Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser 35 40 45

Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp 50 55 60

Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro 65 70 75 80

Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe
85 90 95

Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe 100 105 110

Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Asp Met 115 120 125

Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu 130 135 140

Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu 165 170 175

Val

(2) INFORMATION FOR SEQ ID NO:308:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:308:

Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu
1 5 10 15

Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala 20 25 30

Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln 35 40 45

Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu 50 60

Leu Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala 65 70 75 80

Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser 85 90 95

His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu 100 105 110

Ala Gln Pro Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser Leu Pro 115 120 125 Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile Gln Gly 130 135 140

Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys 145 150 155 160

His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile Pro Trp
165 170 175

Ala

(2) INFORMATION FOR SEQ ID NO:309:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:309:

Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 1 5 10 15

Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 20 25 30

Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala 35 40 45

Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 50 55 60

Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 65 70 75 80

Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu
85 90 95

Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Asp Met Ala Thr 100 105 110

Pro Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser 115 120 125

Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu 130 135 140

Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro 165 170 175

Ser

(2) INFORMATION FOR SEQ ID NO:310:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:310:
- Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu 1 5 10 15
- Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly
 20 25 30
- Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr 35 40 45
- Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro 50 55 60
- Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala 65 70 75 80
- Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser 85 90 95
- Tyr Arg Val Leu Arg His Leu Ala Gln Pro Asp Met Ala Thr Pro Leu
 100 105 110
- Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Lys Ser Leu Glu
 115 120 125
- Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu 130 135 140
- Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly 145 150 155 160
- His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln
 165 170 175

Ala

(2) INFORMATION FOR SEQ ID NO:311:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:311:

Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln
1 5 10 15

Gly Leu Leu Gl
n Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Th
r 20 2530

Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp 35 40 45

Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro Thr Gln 50 60

Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly 65 70 75 80

Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg 85 90 95

Val Leu Arg His Leu Ala Gln Pro Asp Met Ala Thr Pro Leu Gly Pro $100 \\ 100 \\ 105 \\ 110$

Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val 115 120 125

Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala 130 135 140

Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser 145 150 155 160

Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu 165 170 175

Gln

(2) INFORMATION FOR SEQ ID NO:312:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 177 amino acids
 - (B) TYPE: amino acid

- (C) STRANDEDNESS: unknown
- (D) TOPOLOGY: unknown
- (ii) MOLECULE TYPE: peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:312:
- His Leu Ala Gln Pro Asp Met Ala Thr Pro Leu Gly Pro Ala Ser Ser $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$
- Leu Pro Gln Ser Phe Leu Leu Lys Ser Leu Glu Gln Val Arg Lys Ile 20 25 30
- Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys Leu Cys Ala Thr Tyr Lys 35 40 45
- Leu Cys His Pro Glu Glu Leu Val Leu Leu Gly His Ser Leu Gly Ile 50 55 60
- Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser Gln Ala Leu Gln Leu Ala 65 70 75 80
- Gly Cys Leu Ser Gln Leu His Ser Gly Leu Phe Leu Tyr Gln Gly Leu 85 90 95
- Leu Gl
n Ala Leu Glu Gly Ile Ser Pro Glu Leu Gly Pro Thr Leu Asp
 $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110 \hspace{1.5cm}$
- Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln 115 120 125
- Met Glu Glu Leu Gly Met Ala Pro Ala Leu Gln Pro Thr Gln Gly Ala 130 135 140
- Met Pro Ala Phe Ala Ser Ala Phe Gln Arg Arg Ala Gly Gly Val Leu 145 150 155 160
- Val Ala Ser His Leu Gln Ser Phe Leu Glu Val Ser Tyr Arg Val Leu 165 170 175

Arg

- (2) INFORMATION FOR SEQ ID NO:313:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 531 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: unknown
 - (D) TOPOLOGY: unknown
 - (ii) MOLECULE TYPE: other nucleic acid
 - (A) DESCRIPTION: /desc = "synthetic"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:313:

| CACCTTGCGC | AGCCCGACAT | GGCTACACCA | TTAGGCCCTG | CCAGCTCCCT | GCCCCAGAGC | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| TTCCTGCTCA | AGTCTTTAGA | GCAAGTGAGG | AAGATCCAGG | GCGATGGCGC | AGCGCTCCAG | 120 |
| GAGAAGCTGT | GTGCCACCTA | CAAGCTGTGC | CACCCGAGG | AGCTGGTGCT | GCTCGGACAC | 180 |
| TCTCTGGGCA | TCCCCTGGGC | TCCCCTGAGC | TCCTGCCCCA | GCCAGGCCCT | GCAGCTGGCA | 240 |
| GGCTGCTTGA | GCCAACTCCA | TAGCGGCCTT | TTCCTCTACC | AGGGGCTCCT | GCAGGCCCTG | 300 |
| GAAGGGATAT | CCCCGAGTT | GGGTCCCACC | TTGGACACAC | TGCAGCTGGA | CGTCGCCGAC | 360 |
| TTTGCCACCA | CCATCTGGCA | GCAGATGGAA | GAACTGGGAA | TGGCCCCTGC | CCTGCAGCCC | 420 |
| ACCCAGGGTG | CCATGCCGGC | CTTCGCCTCT | GCTTTCCAGC | GCCGGGCAGG | AGGGGTCCTG | 480 |
| GTTGCTAGCC | ATCTGCAGAG | CTTCCTGGAG | GTGTCGTACC | GCGTTCTACG | С | 531 |

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